

THEOSOPHICAL MISCELLANIES.

No. 1.

THOUGHTS ON THE METAPHYSICS OF THEOSOPHY.

BY

S. SANDARAM IYER.

No. 1.

Issued under the Authority of the Theosophical Society.

Calcutta:

PRINTED BY THE CALCUTTA CENTRAL PRESS CO., LD.,
5, COUNCIL HOUSE STREET.

1883.

GRAD

BP

567

, I94x

1883

BAC

IN this pamphlet is reproduced, in a slightly modified form, an address, delivered at the Tinivelly Theosophical Society, by Mr. S. SANDARAM IYER, the Secretary of that Branch.

Although very far from an exhaustive or faultless exposition of the momentous questions discussed, this address is yet considered of sufficient merit to warrant its reproduction in the present form, and the grant to its author of the Third Class Certificate of Merit of the Society.

Of course it is in no sense authoritative. It embodies a good deal that is substantially correct, but also a good deal that is more or less erroneous. Many of its arguments are crude and feeble, or clumsily stated, and it is still in many respects, despite much trouble expended in correcting it, palpably open to adverse criticism. It would, however, be impossible now to improve it materially without entirely rewriting it, and thus destroying its identity, which would be unfair to its talented and zealous author.

But although neither authoritative, nor by any means the last word that has to be said on this vast question, it is eminently suggestive, and will certainly furnish the great bulk of Theosophists with valuable ideas and abundant food for reflection.

BOMBAY :
December 1882.

BP
557
276

CONTENTS.

<i>Section.</i>	<i>Subject.</i>	<i>Page.</i>
1.—	The Metaphysics of Theosophy ...	13
2.—	Lead to a knowledge of the Unconditioned Truth ..	<i>ib.</i>
3.—	Ontology, how far possible and impossible ...	<i>ib.</i>
4.—	All manifestations of Cosmos can be generalized and interpreted in terms of Matter and Motion (or Energy) ...	14
5.—	Such a solution of the Problem of the Universe is insufficient, and Metaphysics must be invoked to complete it ...	<i>ib.</i>
6.—	Western Science may consider Nature completely explained by reference to Matter and Energy, and all necessity for a final cause obviated ...	15
7.—	But many fundamental questions as to both these supposed primates remain to be answered ...	16
8.—	And though the Scientific doctrine of Evolution is rational and incontrovertible these questions must be solved if it is to rest on a secure basis ...	<i>ib.</i>
9.—	<i>What is Matter?</i> ...	<i>ib.</i>
10.—	<i>Were its ultimate units homogeneous or heterogeneous?</i> The most eminent scientists hold the former view, which moreover accords with our experience of the operations of Nature ...	<i>ib.</i>
11.—	Assumed original Heterogeneity is only another phase of the special creation dogma ...	17
12.—	It is based on the supposition that there are 64 or more distinct elements in Nature—a view not supported by spectrum analysis ...	<i>ib.</i>
13.—	All modern science is leading towards the Homogeneity of Matter ...	18
14.—	The doctrine of the Unity of Force tends to support this view ...	<i>ib.</i>
15.—	Scientific testimony to the Homogeneity of Matter—Mr. Spencer, Professors Stewart and Tait, Professor Jevons, Mr. Jean Story ...	<i>ib.</i>
16.—	<i>Were the ultimate material particles of equal or unequal sizes?</i> Their equality demonstrated ...	19
17.—	<i>Were the ultimate Units of Matter of similar or dissimilar shapes?</i> Their similarity demonstrated ...	20
18.—	<i>Were these units of equal or unequal weight?</i> Their equality demonstrated ...	21
19.—	The evolution of Cosmos out of a chaos of such ultimate particles involves the gratuitous assumption of Inertia and Gravity ...	<i>ib.</i>

<i>Section.</i>	<i>Subject.</i>	<i>Page.</i>
20.—	Even with this assumption, more is required before a Cosmos can evolve	21
21.—	What is the Force of Gravity?	22
22.—	On the hypothesis that Matter is a dead or inert substance, then either, first, Gravity must be a physical existence, possess inertia, and be in fact also Matter ; but then what moves its units ? Or, if <i>they</i> are self-moved, why may not the Units of Matter be so likewise ?	<i>ib.</i>
23.—	Or, second, Gravity must be a mode of Motion, which is irreconcilable with the facts	23
24.—	If Gravity be an inherent power in Matter, then Matter will not have inertia and cannot be “ dead”	24
25.—	Whence is Gravity ? Two scientific theories	<i>ib.</i>
26.—	The Corpuscular Conflux Theory. Objections	<i>ib.</i>
27.—	The Corpuscular Efflux Theory. Objections	26
28.—	This theory equally fails to explain Repulsion, and is untenable	<i>ib.</i>
29.—	The simultaneous action in Matter of Attraction and Repulsion	27
30.—	Western Science fails to explain this mystery— Dicta of noted scientists on the subject—Herbert Spencer, Hudson Tuttle, Balfour, Stewart and Tait, Ernst Häckel, Tyndall, Huxley, Jevons, Carlyle, Stoke	<i>ib.</i>
31.—	As a fact, despite tall talk, Western Science leaves all fundamental points hopelessly involved in utter mystery	31
32.—	Yet the scientific materialist ridicules all who con- tend for an intelligent final cause, as fascinated by mystery	32
33.—	Physical Science presents Force to us only as Motion, but is dumb in regard to the Motor, which our Philosophy declares to be THE ETERNAL BEING.	<i>ib.</i>
34.—	Many modern Philosophers are, however, drifting to this same conclusion, as may be gathered from passages quoted from Herbert Spencer, Mau- desley, Winslow, Brittan, Comte, Carlyle, Tyndall and Häckel	33
35.—	Still many men of the highest culture cling to Atheism—this partly explained by quotations from Bacon and Cox	35
36.—	But the main causes as naively confessed by Pro- fessor Tyndall are the morbid delusions of a sickly intellect, for which the best cure is a course of Theosophy	36
37.—	Is Matter Eternal ? First, has it existed from all Eternity ? If so, did Matter begin to move in time, or has it moved from all Eternity ?	<i>ib.</i>

<i>Section.</i>	<i>Subject.</i>	<i>Page.</i>
38.—	If Matter began to move in time, then has there been a time when Force failed to act upon Matter? Reasons for holding that Force (and its effect, Motion) must have been coeval with Matter ...	37
39.—	But has Matter moved from all Eternity? Reasons for holding that the Motion began in time ...	38
40.—	It follows that Matter has not existed from all Eternity ...	40
41.—	This may be proved another way ...	<i>ib.</i>
42.—	Will Matter exist throughout all the future Eternity? No! Having begun in time, it must end in time. Matter can only be the outcome then of something preceding it, <i>viz</i> , the Cosmic Forces, which are only kinetic modes or affections of the one Eternal Potential Force. Matter is not Eternal ..	42
43.—	The non-eternity of Matter may be otherwise inferred. Energy and Matter are the sole constituents according to some scientists of the visible universe. Owing to the constant deterioration and dissipation of Energy, the universe they hold will ultimately become one huge cold inert mass, and so continue for ever more... ..	43
44.—	But Cosmic decay cannot stop here; the molecules of the mass will cease to attract each other; then the Atoms composing these will do likewise, and molecules cease to exist, then the ultimate particles of Matter will do likewise; the Atoms will cease to exist, and Matter will have disappeared out of the Phenomenal Universe ...	44
45.—	Doubtless this will not happen the first time the entire Universe agglomerates, for by this very agglomeration sufficient heat will be generated to start Matter on the evolution of a new Universe, but after each successive collapse the reaction will be feebler and feebler, and ultimately Matter must disappear	46
46.—	It may be urged that Gravity is not one of the correlated Forces, hence need not degrade, and hence inter-molecular attraction need never cease. The highest authorities—Faraday, Hudson Tuttle, Stewart and Tait, Winslow, Grove, Tyndall, &c—hold that Gravity is one of the correlated Physical Forces, and indeed it is impossible to conceive its isolation. So Gravity, and with it Attraction and manifested Matter, must ultimately disappear	47
47.—	The convertibility of Gravity into other Cosmic Forces may be otherwise inferred	49
48.—	Nothing in the foregoing to be construed as ignoring the conservation of Energy. Force will disappear	

<i>Section.</i>	<i>Subject.</i>	<i>Page.</i>
	out of the concrete, but only to be stored up in the abstract Universe	50
49.—	Resuming the foregoing, it may be fairly concluded that Matter is not Eternal	51
50.—	Many scientists concur in this view. Stewart and Tait, Jevons, Herbert Spencer, Crookes, and Clerk Maxwell quoted to this effect	<i>ib.</i>
51.—	The Problem of Force and Matter. Force can only be related in one of four different ways to Matter	53
52.—	First, as a power extraneous to Matter—an hypothesis that cannot be accepted	<i>ib.</i>
53.—	Second, as a power inherent in, but distinct from, Matter—an equally untenable hypothesis	54
54.—	Thirdly, as a power inherent in, and <i>not</i> distinct from, Matter, which practically means that Matter is Force	56
55.—	Fourthly, as a function of Matter. This view is upheld by Hæckel, Bain, Tyndall and others, but this view is untenable; function is the phenomenal effect of Force—never Force itself. To call Force a function of Matter is to call the Cause the Effect, which is absurd	57
56.—	The only tenable solution is that Matter is Force, or more correctly one form or mode of Force	58
57.—	What is Force? Force is the intelligent primordial principle that <i>is</i> , and pervades all space and time	<i>ib.</i>
58.—	Is infinite space <i>something</i> ? Yes! It <i>is</i> an infinite something, and, as can be shown, a positive infinite existence	<i>ib.</i>
59.—	Indeed, as may be proved in many ways, infinite Space is an infinite Plenum, the infinite intelligent principle	59
60.—	What is this Principle? Some say a Personal Deity, some an Impersonal Principle or Being	60
61.—	The Personal Deity Dogma involves grave difficulties	<i>ib.</i>
62.—	Especially in the relations of this Deity with Time, Space, Force and Matter	
63.—	The argument from design does not establish the existence of a Personal Omnipotent Deity—nay, the innumerable failures in design so palpable everywhere establish the conditioned and finite character of the intelligence to which that design is due	61
64.—	Moreover “person” involves “body,” and “body,” finity and relativity, so that no personal God can be what the ordinary Theist conceives his God to be	62
65.—	The alternative doctrine already supported by some of the more advanced modern scientists, like Hæckel, is Pantheism in the strictest sense of the	64

<i>Section.</i>	<i>Subject.</i>	<i>Page.</i>
	word, and upholds an infinite substance as the Intelligent Potentio-Motive Force of the Universe	64
66.—	This Infinite Being may doubtless be said to be un- conscious, incognizant, and unintelligent, but only in a relative sense, for, as explained, it is itself the consciousness, cognizance and intelligence of all things	65
67.—	It fills all space without break of continuity ...	67
68.—	It is a perfect eternal substance, the various modes of whose rhythmic automatic motion constitute the innumerable Cosmic energies, of very few of which Western Science has as yet any cognizance	69
69.—	Matter is first manifested in this perfect eternal sub- stance as vortex rings therein, which constitute the particles of Ether	70
70.—	These vortex rings retain innate in them the mechanical forces of attraction and repulsion ; other forces, undulations of the primal substance, of which these particles are a concrete mode, continue to act upon them, and the genesis of Cosmos commences	71
71.—	This genealogy of Matter is not opposed to the views of many eminent philosophers...	72
72.—	Most Theists and Scientists will, however, dispute it on various grounds, which however are not in the writer's opinion tenable	<i>ib.</i>
73.—	Further light is thrown by this view of the genesis of Matter on the question of its non-eternity, and the cyclic alternation of the evolution and involu- tion of the Cosmos is explained by it ...	73
74.—	These alternations are only the Pralayas and Kalpas of the old Hindu Cosmogony	74
75.—	So the Infinite Potential Energy, the Kinetic Energy and Matter of the Universe which we have found to be scientific facts are only the Brahma, Ishwara, and Maya of this same Cosmology	<i>ib.</i>
76.—	Comparing the Cosmology of the modern science of the West with that of the ancient religion of the East, we find the latter far more comprehensive and more in accordance with the indisputable facts of the Universe	75
77.—	The Eternal Potential Force, Substance or Being, is the Alpha and Omega of Cosmos	78
78.—	Force, life, intelligence pervade all nature, but are not everywhere equally apparent to our limited faculties	<i>ib.</i>
79.—	Aggregates of ethereal particles, which exhibit even to our capacities the phenomena of life and mind, souls as we call them, are comparatively stable ; aggregates of grosser particles which do not, to us,	

Section.	Subject.	Page.
	exhibit <i>these</i> phenomena, minerals, physical bodies of men and animals, are unstable and liable to dissolution under the operation of the ordinary physical and chemical forces ...	78
80.—	Though differing thus in type of animation all Matter is animate—a truth more or less realized by Häckel, Goethe, Tyndall, &c. ...	79
81.—	The Universe is the product of the absolute idea of the Infinite Being, and when withdrawn from manifestation remains a latency in this. This absolute idea is the excito-motive Tendency, innate in the substance of the Infinite, and is the archetypal principle and formative power of the objective universe—a power that must always reproduce this in the same identical form however often it be absorbed or disintegrated. The Infinite Intelligence, whose innate activity constitutes the Universal Law governing the Cosmos, is the absolute idea or the Potential Prototype of the Universe. Tyndall seems to have had glimpses of this truth.	80
82.—	The entire Universe being born of the infinite substance, we and all things are children of a common parent, and hence the indestructible basis of the Theosophical doctrine of Universal brotherhood. The genius of Shelley instinctively seized this fundamental Truth ...	81
83.—	Man is the product of the same substance and the same laws as the Universe; he is a <i>micro</i> of a <i>macro-cosmos</i> . The molecule is, strictly speaking, as much a <i>micro-cosmos</i> as man; they differ only in the stage of development which they have reached ...	82
84.—	Nature and everything that therein is, has a <i>noumenon</i> , or soul, which persists, and a <i>phenomenon</i> or body that changes and dissolves away, yet the two are not as dualists hold eternally and essentially distinct; they are but different modes of the Infinite and Absolute ...	83
85.—	The soul commences in the purest and most elementary form, is attracted to Matter at the very base of Nature's ladder, and slowly ascends, continually putting on and off body after body. In these perpetual contacts with Matter, it assimilates some of the more ethereal particles of this, constituting a psychic body, and thenceforth becomes a materio-spiritual existence, and even Tyndall recognizes the necessarily resulting psycho-physical evolution ...	84
86.—	This dual evolution culminates necessarily in man, and may extend to the development of the adept	85

<i>Section.</i>	<i>Subject.</i>	<i>Page.</i>
87.—	Throughout this evolution the soul is the only permanent factor, the series of bodies, but consecutive moulds for greater and greater perfection. This evolution constitutes the progression, or as it is called Transmigration of Souls—a scientific truth based upon : (1). the existence in man of a sentient entity distinct from the body ; (2), the necessary previous, and (3), subsequent existence of this. This, a most complex problem, can only be very superficially dealt with here ...	86
88.—	The existence in man of a sentient principle distinct from the body may be demonstrated, (a) inferentially, (b) phenomenally ...	<i>ib.</i>
89.—	Inferentially this may be established from the facts observed in regard to surgical operations performed on persons under the influence of mesmerism and anæsthetics ...	<i>ib.</i>
90.—	Or again from the train of reasoning suggested by Professor Draper, and from many other considerations into which it is impossible now to enter ...	88
91.—	Phenomenally this is proved by the facts of spiritualism which have been attested by a large and daily growing body of the most eminent scientists of Europe and America (some of whom are enumerated) ...	89
92.—	Also by the experiences of competent witnesses when under the influence of certain anæsthetics, and conclusively by the power unquestionably possessed by our Adepts of separating this sentient principle, <i>i.e.</i> , themselves. from their bodies, and appearing in their astral forms thousands of miles away from where their physical bodies happen to be at the time ...	90
93.—	The previous existence of the human soul is demonstrable once man is admitted to the product of evolution ...	91
94.—	The apparent dependence of the reasoning faculties on the physical organization explained ...	92
95.—	Western Science, moreover, admits the possession by man of experiences and knowledge, transcending the possibilities of his brief period of development in this life, but explains the unaccounted for experiences, &c., by the doctrine of Heredity ...	<i>ib.</i>
96.—	But the doctrine of Heredity is illogical and untenable, and even the apostles of Western Science, Herbert Spencer, Hæckel, Darwin, Huxley, Wallace, admit its inexplicability ...	93
97.—	Nor is it required to explain the likeness, physical and mental, between progenitors and progeny ...	96
98.—	If these experiences cannot be inherited, and man	

<i>Section.</i>	<i>Subject.</i>	<i>Page.</i>
	yet possesses experiences, all of which he cannot have acquired in this life, it follows that he, or at least his soul, must have had a previous life ...	97
99.—	The normal non-remembrance of the incidents of the previous life (or lives) explained ...	98
100.—	Fleeting glimpses of these previous lives are, however, it would seem at times, caught ...	99
101.—	The necessity of a subsequent existence follows logically from the fact of previous existence, and so the past, present, and future existences of man resume themselves as an unbroken chain of causes and effects ...	<i>ib.</i>
102.—	With the doctrine of Palingenesis is involved that of <i>Karma</i> — <i>Karma</i> and its consequences explained ...	100
103.—	Birth and rebirth are governed by the will or desire for life ...	101
104.—	With the cessation of this will, re-incarnation also ceases, and this will is merely the result of Ignorance of the true nature, origin, and destiny of being ...	102
105.—	Despite all its miseries, the majority of mankind cling to life, and so clinging are born and reborn. Few and far between are those who, their eyes opened to its vanity and hollowness, withdraw from the world, and by culture of their spiritual faculties neutralise the attraction of Matter ...	103
106.—	Such are often unjustly denounced as selfish or lazy; they are necessarily less selfish than the worldly man, and if they shun the struggle for physical existence, it is only to devote all their energies to the struggle for spiritual existence ...	<i>ib.</i>
107.—	Gradually with changed habits of life, thoughts, aims, and aspirations the Psychist differentiates from the worldly man, and under the Natural Law of Selection the Adept evolves a distinct advance on the common man, as this latter is on the ape ...	104
108.—	But the adept would retrograde into the ordinary man if he lived constantly in the world, accustoming himself to its evil ways and works, just as men would retrograde into apes if they lived constantly with apes, accustoming themselves to <i>their</i> ways and works ...	105
109.—	So it is no more selfish or lazy on the part of the adepts to shun the world and mankind than it is for man to shun the society and habitations of apes ...	<i>ib.</i>
110.—	Psychism, the science which leads to adeptship, briefly indicated; its difficulties and temptations ...	106

<i>Section.</i>	<i>Subject.</i>	<i>Page</i>
111.—	But its rewards are great, and it is the direct road to Final Beatitude (<i>Moksha</i>) ...	108
112.—	Final Beatitude (<i>Moksha</i>) as described by a great sage of ancient days ...	<i>ib.</i>
113.—	The three Questions ...	109
114.—	Why should man strive to attain Final Beatitude? ...	<i>ib.</i>
115.—	Wherein do the doctrines of Theosophy and Materialism as to the soul differ? ...	110
116.—	What is <i>Maya</i> or Illusion? ...	111
117.—	This Theosophy (of the Metaphysics of which a feeble outline has been sketched above) towards which all Philosophy and Science are <i>now</i> drifting, slowly but surely, was known and realized here in our beloved mother country thousands of years before the Christian Era ...	<i>ib.</i>
118.—	India has been in the past the source of all the Philosophy, Science, Poety and Art that the whole world has known, and to this day her literature survives unequalled in magnitude and magnificence ...	<i>ib.</i>
119.—	Even the Western World realizes something of this, and bears testimony to all that Mankind owes to Aryavarta ...	112
120.—	Well may we be proud of the ancient glories of our country, and resolve to be worthy of our great ancestors ...	113
121.—	But in the midst of such feelings we cannot but experience a deep humiliation, at the shallow materialism and general and growing demoralization of the so-called educated rising generation ..	114
122.—	Against this growing and monstrous evil, let us, let all true Theosophists, band themselves together !	<i>ib.</i>

Let us then be up and doing
 With a heart for any fate,
 Still achieving, still pursuing,
 Learn to labour and to wait.

THOUGHTS ON THE METAPHYSICS OF THEOSOPHY.

No. 1.

DEAR BROTHERS,

No happier or more hopeful moment has yet occurred for me than this, in which we all thus meet upon the cosmopolitan platform of Universal Brotherhood ; and it devolves upon me to address you upon a theme in which you, and I, and all other truth-seekers, are so deeply interested—the Metaphysics of Theosophy.

2. Now, what *are* the Metaphysics of Theosophy ? What is involved in this puzzling, yet fascinating, enigma—this nightmare and poison to the Atheist—this elixir of Spiritual Life to the Wise ? The Metaphysics of Theosophy, my Brothers, lead to the attainment of absolute knowledge ; in other words to the knowledge of the Unconditioned Truth.

3. Is Ontology, then, possible for the conditioned existence ? you will say. I reply, paradoxically perhaps, Ontology *is* possible, and is *not* possible for the finite intelligence ; possible when and to the extent that this is disenthralled from the brutalising influences of Matter, and impossible so long as this continues weighed down by ignorance into the gloomy depths of Materiality. The possibility of the acquirement of such a knowledge is raised to a maximum, and the impossibility is reduced to a minimum, when we realize the astounding pheno-

mena displayed by the mechanism of man in its abnormal states, such as those of Clairvoyance, Pneumatography and Occultism on the one hand, and the automatic manner in which it performs its office in its normal condition on the other, and then investigate without prejudice their *rationale*, and deduce appropriate and necessary inferences. Many are the philosophical geniuses, whose utmost efforts directed to the right comprehension and solution of the metaphysical problems of Theosophy have yet been persistently baffled simply because the abstract something for which they seek is antecedent to, and the Parent of, Phenomenal Nature ; the Conditioned Objective and Subjective Universe is in fact the Primordial Essence and Prototype of All Things. "That which is first in the order of Nature," says Dr. Ferrier in his "Institutes of Metaphysic," "will be the last in the order of knowledge." Hence, Ontology will form the last chapter in the history of the Science of Nature ; and our way to it runs from and through its Correlative, Epistemology, or, as the Anglo-Aryan thinker, Mr. Herbert Spencer, would have it, we must "argue from Phenomena to Noumena."

4. Now, all the manifestations of the Cosmos can be universally generalised and interpreted in terms of Matter and Motion (or Force). Here is the most critical point in philosophy—that dangerous chasm between the Ordinary and the Transcendental, between Intellect and Intuition, between Physics and Metaphysics, wherein so many intellects have been engulfed to perish in the gloom of Scepticism.

5. Doubtless you will here enquire whether, if the complex synthesis of all Cosmic phenomena can be ultimately resolved into the two elementary factors of Matter and Force, it would not be reasonable to rest satisfied with this analytic solution of the Problem of the Universe ? What warrant, you may say, have we to go beyond these (Matter and Force) in quest of a final cause ? And why must we invoke

the aid of Metaphysics, *i.e.*, the ultra-experimental philosophy, in interpreting the ultimate truths of Physics? Why? Because the axiomatic truths of Natural Philosophy could never be explained by Positive Science *per se* unless in Synthesis with Metaphysics. Let us hear what Mr. Spencer says in reference to this point: "The contempt which, as a physicist, the reviewer expresses for the metaphysical exploration of physical ideas, I will pass over with the remark that every physical question, probed to the bottom, opens into a metaphysical one; and that I should have thought the controversy now going on among chemists respecting the legitimacy of the Atomic Hypothesis might have shewn him as much."*

Again: "The ultimate truths of Mathematics, then, cannot be established by any experimental proof, that the deductions from them are true, since the supposed experimental proof takes them for granted. The same thing holds of ultimate physical truths."†

Professor Tyndall and Winslow might be read with interest and advantage in this connexion. Hence metaphysical conceptions are by far the most powerful solvent in the solution of questions concerning the fundamental laws and principles of physics. And the methods of our arguments must be physico-metaphysical.

The hieroglyphics of nature are, and must always continue to be, beyond interpretation in the inarticulate language of Atheism and Materialism, unless to this is prefixed the alphabet of an Ultimate Cause.

6. Dear Brothers, the arch priests of Western Science proclaim that they have answered (to their own satisfaction?) the Whence and How of Nature, by interpreting its processes and phenomena in terms of Matter and Energy; and thus possess scientific grounds for dispensing with any prior or final cause.

* Essays: Scientific, Political and Speculative, Vol. III, p. 311.

† *Ibid.*, p. 327.

7. Now what is Matter? Was it homogeneous or heterogeneous in its nascent state? Were its ultimate units of similar or dissimilar shapes? Were they all equal or unequal in size? Were they of different or the same weight? What is the destiny of Matter? Is it eternal? And what is Force? Is it a thing—a physical reality or *no* thing,—a mode of motion? Is there one Force, or more than one? In case of plurality of Forces, what is the relation between them? Are they discrete entities, or transformations of one and the same Force?

8. Science teaches that in the beginning of things Primal Matter lay diffused throughout Cosmic space in the shape of nebulous dust or atoms; and Force, in one of its various modes, *i.e.*, Gravitation, caused motion among those primitive particles.

Thus, Matter, operated upon by Force, has passed through an endless series of infinitesimal gradations of development, and has at last evolved the present harmonious Physical Universe. This doctrine of the Evolution of Nature from the primoidal world-vapor; of progression through the multifarious processes and states of development, such as atomization, molecularization, crystallization, vegetation, animalization, anthropization up to the perfect Adept or Mahatma (to say nothing of higher stages elsewhere)—seems to our reason acceptable and incontrovertible. Indeed, were certain difficulties felt at the outset removed, the rest would follow as a matter of course. Given the ultimate units of Matter, and the Forces of Attraction and Repulsion, *i.e.*, Motion, we can at once evolve Cosmos out of Chaos.

9. Now, to the questions: What is Matter? Matter is substance having extension, figure, impenetrability, divisibility, and mobility.

10. Were its ultimate units homogeneous or heterogeneous? Philosophers differ in their opinion on this point; but the great majority—and they the highest authorities—assert that they were all of one

kind. Among others who hold this view are Herbert Spencer, Leibnitz, Prout, Stas, Lockyer, Stewart, Tait, Bornouf, Spinoza, Jean Story, and Jevons. Knowing from experience that the operations of Nature always begin from the least possible complexity and the greatest possible indefiniteness, and proceed towards the greatest possible complexity and the least possible indefiniteness, we cannot but infer by deductive reasoning that ultimate particles must have been uniform and had a common origin.

11. To say that the first beginnings of things were of diverse qualities is to begin Matter not from its primordality, but from its molecularity, *i.e.*, a stage of development where the homogeneous units had already advanced and entered into composite structures or chemical aggregates. This hypothesis of the Heterogeneity of ultimate units of Matter is but a relic of the unphilosophical and exploded dogma of special creations ; for what and where is the distinction between the popular delusion, that the universe and all that therein is (organic as well as inorganic, animate and inanimate, rational and irrational) have from the beginning continued to be what they now are, each being ushered into existence by the fiat of, or manufactured by, an Anthropomorphic Deity ; and the pseudo-scientific theory, that the ultimate particles of Matter have continued to be of different kinds from all infinity, they, every one of them, coming into independent existence by the magic of the Deity, called Blind Chance ?

12. This theory has originated out of the ill-founded assumption that there are in Nature sixty-four or more distinct absolute elements. But fortunately for Truth, Spectrum Analysis reads in the book of Nature quite a different version. It leads to the belief that the so-called elementary substances could all, without exception, be decomposed into a primitive un-chemical element, at sufficiently high temperatures. Some conventionally named elements yield spectra, wherein are noticeable clear lines intercepting the

ethereal undulations, which fact proves, apparently, that each such so-called elementary molecule is a compound of as many homogeneous atoms as there are lines in its spectrum.

13. The Doctrine of the Homogeneity or Unity of Matter is the goal towards which Chemistry, Physics, and Astronomy are drifting. The Spectroscope reveals to us that the various celestial bodies are all composed of the very same elements ; and Chemistry, whose special province lies at the root or base of Matter, proposes and propounds the Theory of Equivalents, which substantiates the Monistic Hypothesis of Matter, the essential oneness of things. The multiplicity of the properties of material things is owing to the multiplicity of the modes of atomic combinations as well as to the multiplicity of the forms of atomic motion.

14. The Doctrine of the Correlation of Forces *i.e.*, of the Unity of Force, itself distinctly tends to indicate that the various kinds of Matter are only various affections or accidents of a single kind of Matter.

15. Mr. Spencer says : " By shewing that difference of property is producible by difference of arrangement, they support the inference otherwise to be drawn, that the properties of different elements result from differences of arrangement arising by the compounding and re-compounding of ultimate *homogeneous* units." *

" While the number of as yet undecomposed bodies is slowly increasing, by fresh discoveries," say Professors Stewart and Tait, " chemists are beginning to speculate as to the possibility that these so-called elements may be in reality nothing more than combinations differing in numbers and in tactical arrangement of some *one kind* of primordial atoms." †

* Essays : Scientific, &c., Vol. III, pp. 235, 236.

† The Unseen Universe, p. 160.

Professor Jevons writes : " Prout's Law bears more probability, because it would bring the constitution of the elements themselves in close connection with the atomic theory representing them as built up out of a *simpler* substance."*

Again : " It is possible that the *so-called* elements are elementary only to us, because we are restricted to temperatures at which they are fixed..... We must look to the production of intensely high temperatures, yet quite beyond our means, for the decomposition of these *so-called* elements."†

And Mr. Jean Story says : " As different elements are invariably different in density or specific gravity, we perceived that substance must needs be..... essentially homogeneous..... Thence taking it as granted that their (*i.e.*, elements) difference in quality consisted in their different degrees of tension and in the directions to which their movements tend, we perceived that all elements must needs be quantitative equivalents of substance."‡

The Theory of the Heterogeneity of Matter is, I think, wholly untenable and must give place to that of Homogeneity.

16. Were the ultimate material particles of equal or unequal sizes? I answer they were of equal size. Because, otherwise one particle, or one species of particle, would be larger than another, a third than a fourth, and so on. Now a larger particle must be equivalent to an agglomeration of as many smaller ones as could be contained within the space it occupies. But these particles are *ex hypothesi* indissoluble single wholes, that is, ultimate units of matter. But, as has been shewn above, the larger particle is equivalent to an aggregation of minuter bodies, that is, to more than one ultimate unit of matter. Therefore, one ultimate unit of matter (which I have already shown to be *homogeneous*) is equal to more than one ultimate unit of matter ; or,

* The Principles of Science, p. 263.

† *Ibid.* pp. 427-8.

‡ " Substantialism, or Philosophy of Knowledge," p. 4.

the less equal to the greater, which is at once impossible and absurd. Wherefore the primordial particles were not dissimilar in bulk, *i.e.*, they were all of one uniform magnitude. Here an objection, *apparently* fatal to this line of argument, might be raised, namely, that the quantity of matter in a body is not estimated according to its bulk. True ; but this objection is applicable only to bodies that are *composed* of particles, and have consequently larger or smaller interspaces between their constituents, that is, have vacant spaces inside them. But the body of the particle, as an ultimate unit, is a continuous whole, having no vacant space in it ;--- in brief, it is a solid singleness. Therefore this objection is inapplicable to the case of the particles.

17. Were the ultimate units of Matter of similar or dissimilar shapes ? I say they were all of one and the same shape. If not, they could not have been *units* of Matter, but must have been *compounds* of such. Granted however they were dissimilar. Then, when we measure the space occupied by one such particle by applying to it that occupied by another such particle, we should find that the whole space subtended by the one did not coincide with the whole space subtended by the other, but only a part of what was subtended by the one with a part of what was subtended by the other, the rest of the space subtended by each not coinciding. Now, cut off, as we plainly can, from these atoms those portions which occupy the non-coinciding portions of the subtended spaces.

That we can do this (as we manifestly can when able to detect such non-coincidence) proves that both the supposed particles are capable of divisibility ; but, being *ultimate* particles, they cannot be divided. Therefore, atoms are both divisible and indivisible, which is both impossible and absurd. Wherefore these supposed non-coinciding particles are not really our hypothetical particles but some combination or development of these, and the ultimate particles of substance cannot have been of unlike

forms ;—in other words must have been all uniform in shape.

18. Were the ultimate particles of matter of equal or unequal weight? Of equal weight. For, they being all composed, as shewn above, of one homogeneous substance and equal in size, and their bodies being, as ultimate units, continuous extensions, they must be equal in masses. The weight of bodies composed of the same substance, or, in other words, the amount of gravity residing in them, is proportional to their masses. The atoms were all equal in mass, and therefore all equal in weight. Thus, we see it mathematically demonstrated that the primordial units of Matter were : (a), homogeneous ; (b), similarly-shaped ; (c), equal-sized ; and (d), equally weighty.

19. Our present fully-developed universe was therefore in its nascent state a vaporous mass, whose monads were all of one kind, of one shape, of one bulk, and of one weight. Out of this chaos evolved the cosmos. The very first step in the direction of cosmical progression was the change made in the mode of inertia of the atoms from static to dynamic. But the fact that such a change took place presupposes two gratuitous assumptions, and they the very fundamental ones, without which there could have occurred no cosmical development as such at all. They are : (1), Inertia ; and (2), Gravity. How matter came to be possessed of such mysterious attributes as Inertia and Gravity, Science cannot tell.

20. Science, however, begs the question and says that in the beginning there were atoms continuously filling all cosmic space ; and in virtue of the Force of Gravitation they attracted each other. Now, pray, what is this Force of Gravitation? Gravity is defined as a property of atoms or molecules by virtue of which they attract each other in proportion to their relative masses : Well then infinite space being filled by an infinite number of homogeneous

monads, all as we have shown equal in size, weight and shape, every monad would be equally pulled in all directions and no motion could result.

The particles could be neither attracted nor could they gravitate towards each other, but must have continued to constitute the selfsame nebulous chaos through all time, from eternity to eternity. How then could such an unorganized and formless nebula evolve this harmonious and beautiful Physical Universe? The premises being as stated by science, no motion and therefore no development could result.

21. These considerations apart, let me next discuss the question: What is the Force of Gravity? Is Matter a "dead" or "inert" substance; and is Force generally, including that of Gravity, a thing, or a mode of Motion? Or is Force an inherent power in Matter?

22. I shall first discuss the hypothesis that Matter is a dead or inert substance, and see if the actions of attraction and repulsion are possible according to it. "The Forces," says M. Wurtz, "which are considered in Mechanics, must emanate from something, and they must be applied to something. In Chemistry we suppose they emanate from, and are applied to, imperceptible but limited and definite particles. We call these particles atoms."*

This emanating force must be a thing, *i.e.*, a physical existence. If not so, it is a nothing, a non-existence. If non-existent, how could it exercise any influence upon Matter? Therefore, this force is a real existence, or entity. As a real entity, it must be composed of constituents or particles, however minute they may be. The constituents or particles must have inertia; for, according to the present hypothesis, without inertia there can be no beginning of motion; without motion, no friction; without friction, no united action; and without united action, no exercise of tangible influence upon the body acted

* "The Atomic Theory," p. 330.

upon ;—in short, no distance-action. But whatever has inertia, that most specific property characterising Matter, must itself be Matter also. Therefore, Force is Matter. What then do our scientists mean when they draw so broad a line of demarcation between them, as if they were essentially different? Again, the particles or units of the Gravitational Force must of necessity be smaller than those of Matter, inasmuch as they do according to the Theory of Corpuscular Emanation, issue from, or are, as the Theory of Corpuscular Conflux says, finer than, move between, and act upon, those of the latter. Now, if there are particles (units of Force) of smaller dimensions than those of the primeval matter, how could our scientists consistently insist upon their dogma that “Atoms are least in things”? Besides, what causes the motion of these units of Force, which are also as much physical bodies as the Atoms? If one sort of physical bodies, namely, units of Force, can move by themselves, what absurdity is there in supposing that another sort of physical bodies, namely units of Matter, can also move by themselves?

23. Or if the Force of Gravitation be a mode of motion, we may enquire what is it that causes in the ether-ocean, oscillations, whose different lengths and amplitudes, producing varieties of motions among the atoms and molecules, and presenting thereby multifarious natural manifestations, constitute different cosmic Forces, one particular mode of which is the Force of Gravity?

It will be said that perhaps the ethereal waves were caused by Atomic tremors ; but then you must not forget that the Atomic tremors are the resultants of the shocks imparted to the elastic forces of Matter— are the effects of the Attractions and Repulsions exercised and experienced by the material particles. For the Atoms impinge upon each other, rebound, and *only afterwards* quiver in seeking for equilibrium. Now it is quite obvious that Atoms cannot quiver without attracting and repelling each other. We see thus that Gravity (together with Repulsion) is

the cause, and not the effect, of the tremors or quivers of Atoms. Therefore, the ethereal vibrations were not caused by Atomic tremors, and the Force of Gravitation is not an undulation of Ether, *i.e.*, is not a mode of Motion.

24. If it be said that the Gravitational Force is an inherent power of Matter, then Matter will have no inertia, and it will be no "dead" substance. But we are treating of Matter as an "inert" substance.

25. As respects the origin of Gravity it can, according to *Materialistic Philosophy*, only be accounted for by either the Corpuscular Conflux Theory, or the Corpuscular Efflux Theory.

26. The former hypothesis propounds that a perpetual rain of ultra-atomic corpuscles does, with enormously great velocities, shower from all directions out of space towards the centre of Gravity of the attracting body; and this incessant shower tends to carry all the bodies it encounters in its course towards that centre. What a futile conception! For, what difference is there between this way of explaining Gravitation, and that of accounting for the Earthward motion of an apple detached from the branch by saying that the apple falls to the ground because a mango also severed from the branch does the same? On asking why a certain atom gravitates in the direction of another, we are told that it does so because ultra-atomic corpuscles gravitate towards that other atom! Clearly the question is not thereby answered, but only shifted from mystery to greater mystery,—from the atom to the ultra-atomic corpuscle. Granted, for the sake of argument, the theory of the agency of the ultra-atomic particle in the genesis of the atomic motion, but what makes the ultra-atomic particles move? To meet this difficulty of causation, another species of particle, still finer than the ultra-atomic corpuscles, which we suppose will be denominated supra-corpuscular particle, must be invented. When once more we

press the question why does this supra-corpuscular particle gravitate towards the ultra-atomic corpuscle, a fourth set of still finer particles will have to be imagined as the cause ; and so on *ad infinitum*. The definition of Gravity, now in vogue in the scientific world, would have, according to this hypothesis, to be entirely changed. For Gravitation is defined to be energy exercised by bodies in proportion to their relative masses. But according to the corpuscular theory bodies are drawn towards centres of attraction, not in virtue of the greater massiveness of these centres, but by the sweeping force of the streams of corpuscles flowing towards and upon them from the depths of space. Let us suppose there is a small body at the confluence of some of these streams, for why cannot a small body happen to be there, as well as a large one (unless we suppose that there is something in the body which draws in these corpuscles, in which case they become superfluous), and large bodies about it in the courses of those streams. What would then occur ? Why, the larger bodies would be drawn towards the smaller by those streams ; or, to speak in the vernacular of physics, the smaller body would attract the larger ones. The scientific definition of Gravity must then become a power of attraction exercised by bodies *not* in proportion to their masses, but according, as chance has placed them, at or near the confluences of larger or smaller corpuscular streams. In pursuance of this new definition, there must be instances in Cosmic space, where larger bodies attract smaller ones, and others where smaller ones attract the larger ; but are there any instances of the latter kind in Cosmos ? This is the legitimate conclusion we are forced into. Add to this the insuperable intellectual impossibility of answering questions like the following :— (1), Where is the source in the economy of Nature that feeds these never-failing streams of corpuscles ? (2), How is the supply of the corpuscular energy kept up ? (3), What becomes of the ever-swelling deluge of particles flooding the surfaces of gravi-

tation-centres ? This much regarding the Corpuscular Conflux Theory.

27. On the other hand, the Corpuscular Efflux Theory asserts that particles are constantly streaming out into the infinity of space from all sides of centres of attraction, and thus draw the bodies about them toward those centres ; but only a moment's reflection will suffice to unmask, and leave the unscientific nature of such a speculation in its entire nakedness. How can the particles, emanating from the attractive body, draw another body towards the self-same attractive body ? For aught we can conceive, the tendency of such an efflux would be to repel all neighbouring bodies which would be borne farther and farther away from the central body along those outrushing currents. And, besides, according to the Law of Statics, these ultra-atomic particles, before they were acted upon by some motive power, must have been remaining in a quiescent state in their native places or sources, whether they were within the attractive body in accordance with the Efflux Theory, or somewhere in the infinity of space as the other theory has it. Now, what was that motary force that put them in motion ?

28. So much for these two theories where the Force of Gravitation is concerned. What about the Force of Repulsion ? Has science shed any light upon this mysterious power ? No ; she is as ignorant about this as about attraction. Cannot the Theory of Corpuscular Efflux explain the phenomenon of Repulsion ? No ; it is simply impossible. For we have first to account for the motions of the emanating corpuscles. Moreover, we are told by the chemist that the atom or ultimate particle, the unit of Matter, is a body minuter than which, there is, and *can* be, no other body in all Nature. But strange to say, the present theory tells us that small corpuscles emanate from the atom. Is it not sheer contradiction in terms to say that the *minutest* body (atom) emits any other body (corpuscle)—nay, worse, a number of

bodies? This emission means that the ultimate atom is a compound body, capable of being divided into as many parts as is the number of the corpuscles that emanate from it. The metaphysical impossibility of this logic gets still more manifest when we are told that the corpuscles are rushing out from the atom in all directions, *not occasionally* but *constantly* and *eternally*; constantly, because Matter repels Matter as often as it attracts it, which counter-actions are going on alternately and incessantly in the Material Universe. From this we learn that the minutest existing body (the atom or ultimate particle) is yet an aggregation large enough to contain an inexhaustible quantity of smaller bodies sufficient for eternal emanations!!! What a perverse abuse of scientific definition! The Force of Repulsion cannot, therefore, be interpreted by the Corpuscular Emanation Theory.

29. I must now draw your serious attention to another still more inexplicable phenomenon, manifested by Matter—the complex and simultaneous action of attraction and repulsion. By this action, one and the same body attracts and repels another body in one and the same space, and at one and the same time! Can this double phenomenon be possible? We can only conceive a body as attracting another at *one time*, and repelling it at *another time*. But how can the human intellect realize the conception of both these actions occurring simultaneously in the same thing? Nevertheless it is a fact of Nature which is faithfully recognised by science. Atoms would literally touch each other with no interspaces between them, but for the repellant force exercising its power simultaneously with the attractive force. This is a beneficent law of Nature; for, if the ultimate particles came into actual contact, there could be no motion; without motion, no change; and without change, no progress in any shape.

30. Has Science succeeded in unravelling the mystery connected with the universal co-existence

of these two antagonistic forces in Matter? No. How can she do so, while she herself so roundly confesses her utter inability and helplessness to account for these forces taken separately? Let us hear what the leaders of Western Science themselves, such as Herbert Spencer, Stewart, Tait, Tyndall, Huxley, Ernst Hæckel, Jevons and Stokes say about the achievements of Modern European Science and Philosophy: "The explanation of that which is explicable," says Mr. Herbert Spencer, "doth but bring out into greater clearness the inexplicableness of that which remains behind.....The sincere man of Science, content to follow wherever the evidence leads him, becomes by each new enquiry more profoundly convinced that the Universe is an insoluble problem. If, tracing back the evolution of things, he allows himself to entertain the hypothesis that all matter once existed in a diffused form, he finds it utterly impossible to conceive how this came to be so.....Though he may succeed in resolving all properties of objects into manifestations of force, he is not thereby enabled to realize *what Force is*; but finds, on the contrary, that the more he thinks about it the more he is baffled.....Inward and outward things he thus discovers to be alike inscrutable in their ultimate genesis and nature.*"

"However verbally intelligible," says the same writer, "may be the proposition that pressure and tension everywhere co-exist, yet we cannot truly represent to ourselves one ultimate unit of Matter as drawing another while resisting it. Nevertheless, this last belief we are compelled to entertain. Matter cannot be conceived except as manifesting forces of attraction and repulsion.†"

Mr. Hudson Tuttle writes, that we "assume the existence of a mass of world-vapor.....Of the primordial condition of this vapor nothing can be known. To say that it was an ocean of fire, involves inexplicable difficulties. The heat manifested at a

* Essays : Scientific, &c.. Vol. I, pp. 58-9.

† First Principles, pp. 223-24.

later epoch undoubtedly resulted from condensation, —was an effect instead of a cause.....Previous to the epoch nothing is known.*"

"Our notions of the nature of matter are," say Professors Balfour, Stewart, and Tait, "at best but hazy.As to *what it is*, we know no more than Democritus or Lucretius.†"

And "the greater the circle of light the greater the circumference of darkness; and the mystery, which has been driven before us, looms in the darkness that surrounds this circle, growing more mysterious and more tremendous as the circumference is increased.‡"

Professor Ernst Hæckel writes: "Our knowledge is limited. The force of crystallization, the force of gravitation, and chemical affinity remain in themselves just as incomprehensible as do Adaptation and Inheritance.§"

Again the same philosopher continues: "The notion of an original gaseous chaos filling the whole universe presents great difficulties of various kinds. A great and unsolved mystery lies in the fact that the Cosmological Gas Theory furnishes no starting part at all in explanation of the first impulse which caused the rotatory motion in the gas-filled universe.||"

"The "Law of Conservation," remarks Professor Tyndall, "makes no statement regarding that quality, *viz.*, Gravity. It takes the facts of attraction as they stand, and affirms only the constancy of working power. *Of the inner quality that enables matter to attract matter we know nothing.*¶"

"Science knows nothing of the origin and destiny of nature. Who or what made the sun, and gave his rays their alleged power? Who or what made and bestowed upon the ultimate particles of matter their wondrous power of varied interaction? Science does not know.**"

* Arcana of Nature, Vol. I, p. 61.

† The Unseen Universe, pp. 141-2.

‡ *Ibid*, p. 236.

§ The History of Creation, Vol. I, p. 32.

|| *Ibid*, p. 324.

¶ Fragments of Science, Vol. I, pp. 26-7.

** *Ibid*, Vol. II, p. 52.

"The passage from the physics of the brain to the corresponding facts of consciousness, is inconceivable as a result of mechanics. I do not think the materialist is entitled to say that his molecular groupings and motions explain everything. *In reality they explain nothing*.....If you ask him whence is this matter, who or what divided it into molecules, who or what impressed upon them this necessity of running into organic forms—he has no answer. *Science is mute in reply to these questions*.....Let us lower our heads, and acknowledge our ignorance, priest and philosopher, one and all.*

Professor Huxley, one of the Pontiffs of Occidental Physics, observes in his "Physical Basis of Life" that "we know nothing about the composition of any body whatever, as it is." Again: "What then do we know about Matter and Motion?.....All that we know about Motion is, that it is a name of certain changes in the relations of our visual, tactile and muscular sensations; and all that we know about Matter is that it is the hypothetical substance of physical phenomena—the assumption of the existence of which is as pure a piece of metaphysical speculation as is that of the existence of the substance of mind.....The Materialist, holding by the truth that material phenomena are the causes of mental phenomena, asserts his improbable dogma that material phenomena and the substance of matter are the sole primary existences."†

Professor Jevons says: "The complexities of existing phenomena probably develop themselves more rapidly than scientific methods can overtake them. In spite of all the boasted powers of Science, we cannot really apply scientific method to our own minds and characters, which are more important to us than all the stars and nebulae."‡

"All our knowledge of Nature is indeed founded in like manner upon observation, and is therefore

* Fragments of Science, Vol. II, pp. 86-8.

† "Science and Culture and other Essays," pp. 272-3.

‡ The Principles of Science, p. 734.

only probable. The Law of Gravitation itself is only probably true.”*

And again: “Can any scientific man venture to state that there is less opening now for new discoveries than there was three centuries ago? Is it not rather true that we have but to open a scientific book, and read a page or two, and we shall come to some recorded phenomena of which no explanation can yet be given? In every such fact there is a possible opening for new discoveries, and it can only be the fault of the investigator’s mind if he can look around him and find no scope for the exercise of his faculties.”†

Carlyle says: “This world, after all our science and sciences, is still a miracle, wonderful, inscrutable, magical, and more to whosoever will think of it.”

“What this something which we call life,” says Professor Stokes in his presidential address to the British Association at Exeter, “may be, is a profound mystery. When, from the phenomena of life, we pass on to those of mind, we enter a region still more profoundly mysterious.”.....“Science can be expected to do but little to aid us here, since the instrument of research is itself the object of investigation. It can but enlighten us as to the depths of our ignorance, and lead us to look to a higher aid for that which most nearly concerns our well-being.”

31. Now, Gentlemen, this is the sum total of the knowledge as to the foundations of Nature possessed by the Modern West.

Of the details of the superstructure, it knows much, and is fussily grand over its vast heap of insignificancies; but of first principles and first causes it is, and admits itself to be, profoundly ignorant.

Yet it is with this baseless knowledge as a key that the Materialist boasts that he has unlocked and thrown open the portals of Nature’s sanctuary. The name of this priceless key is Mystery. Propound any

* The Principles of Science, p. 259.

† *Ibid*, p. 754.

problem involving Cosmic Secrets, and the scientist at once, with calm self-satisfaction, makes a grand show of applying this dummy key, but as a fact leaves everything as closely shut as it has ever been.

Ask him what and how was our Universe during the Pre-Cosmic Period? He will at once answer: "It is a *Mystery*." How came the primal matter to be diffused through the cosmic space? "*Mystery*." How comes matter to possess Inertia? "*Mystery*." What is the cause of Gravitation? "*Mystery*." Of Repulsion? "*Mystery*." How is the simultaneous action of Attraction and Repulsion possible? "*Mystery*." What is the genesis of Life? "*Mystery*." Of Mind? "*Mystery*." Of Intelligence? "*Mystery*."

What? "*Mystery*" here? *Mystery* there? *Mystery* everywhere? O! Mystery! Thou art truly Omnipresent and All-Sufficient in the Realm of Science.

32. But while dead Matter, shrouded in sable mystery, thus reigns the Omnipresent and Paramount Autocrat in the scientific materialist's Creed, the votary of Matter yet laughs Pharisaically, blessing, (dead matter I suppose, that's *his* God) that he is not as others, who contend that the Universe and all the phenomena thereof are not, and cannot be, the product of the actions and reactions, that Inert Matter, Brute Force, and Blind Chance mutually exercise upon each other, but are, and must be, the effects of an Universal Intelligent Force acting from within and without the so-called Matter. Those who hold such views he derides as "superstitious *ignorami*" who have a "*fascination for mystery*," as if, forsooth his own system of philosophy, quite excluded anything so childish as mystery!

33. We have considered Force from the scientific standpoint, and find it presented to us as motion only, and nothing more. But motion presupposes a Motor. Motion is only a Consequent; what is its Antecedent? Motion is only an Effect; what is its Cause? Surely, the Antecedent of the Consequent, the Cause of the Effect, the Motor of the Motion,

is, as our ancient Philosophy teaches, "THE ONE AND ONLY," *the Eternal being that IS and pervades all Space and all Time.*

34. "Force, as we know it," says Herbert Spencer, "can be regarded only as a certain conditioned effect of the Unconditioned Cause—as the relative reality indicating to us an Absolute Reality, by which it is immediately produced.*

Again: "Once more we are brought round to the conclusion, repeatedly reached by other routes, that behind all manifestations, inner and outer, there is a Power manifested.....Its Universal Presence is the absolute fact, without which there can be no relative facts.....We learn that the One Thing permanent is the unknowable reality hidden under all these changing shapes."†

Professor Maudesley says: "It is not easy to perceive, indeed, how modern science, which makes its inductions concerning natural forces from observations of their manifestations, and arrives at generalizations of different forces, can, after observation of Nature, avoid the generalization of an Intelligent Mental Force, linked in harmonious association and essential relations with other forces, but leading and constraining them to higher aims of evolution."‡

"I shall proceed," says Professor Winslow, "to elucidate the mode and mechanism by which Attraction and Repulsion—those abstract immaterial entities which link mind with matter, and infuse or transform the spirit and power of the Creator into dynamical, geometrical, morphological, and vital functions—act through atoms, molecules, and masses, in order to initiate vibration and oscillation, evolve mechanical motion, originate the secondary forces of heat, light, electricity, and magnetism, with their polarities, and bring forth unending successions of other phenomena from apparent chaos."§

* The First Principles, p. 170.

† "The Principles of Psychology," Vol. II, p. 503.

‡ "Body and Mind," p. 333.

§ "Force and Nature," p. 256.

Professor Brittan says : " The crystal is the concrete illustration of those mysterious attractions and affinities whereby the ultimate atoms coalesce, remain united, and form the worlds. The atomic polarities and their mutual relations are determined proximately by the subtle forces of imponderable agents ; and in the last analysis by the supreme intelligence."*

Comte, from whom Modern Positive Philosophy drew its new name of " Comtism," says : " Atheism, even from the intellectual point of view, is..... very imperfect.If we insist upon penetrating the unattainable mystery of the essential cause that produces phenomena, there is no hypothesis more satisfactory than that they proceed from wills dwelling in them.....Were it not for the pride induced by metaphysical and scientific studies, it would be inconceivable that any Atheist should have believed that his vague hypotheses on such a subject were preferable to this direct mode of explanation.....Its (of the order of Nature) production would be far more compatible with the hypothesis of an intelligent will than with that of a blind mechanism. Persistent atheists, therefore, would seem to be the most illogical of theologians....."†

Carlyle observes : " Force, force, everywhere forceAtheistic science babbles poorly of it, with scientific nomenclatures, experiments, and what not, as if it were a poor dead thing.....but the natural sense of man, in all times, if he will honestly apply his sense, proclaims it to be a Living Thing—ah ! an unspeakable God-like thing."

Professor Tyndall says : " They (philosophers) have little fellowship with the Atheist, who says there is no God."‡

" Nor am I anxious," says the same philosopher, " to shut out the idea that the life here spoken of may be but a subordinate part and function of a higher life."§

* " Man and His Relations," p. 10.

† " Politique Positive," English Translation by Bridges, Vol. I, p. 37.

‡ " Fragments of Science," Vol. II, pp. 135-6.

§ *Ibid.*, pp. 247-8.

Again: "I could by no means get rid of the idea that the aspects of Nature and the consciousness of man implied the operation of a power altogether beyond my grasp—an Energy, the thought of which raised the temperature of the mind."*

Professor Hæckel says: "The more developed man of the present day is capable of, and justified in, conceiving that infinitely nobler and sublimer idea of God.....which recognizes God's spirit and power in all phenomena without exception. This idea of God has already been expressed by G. Bruno in the following words: 'A spirit exists in all things; and no body is so small but contains a part of the divine substance within itself, by which it is animated.'"[†]

Again: "Spirit exists everywhere in Nature."[‡]

35. It is equally startling and painful to observe that with such palpable proofs before them that an Absolute Impersonal Principle is working in Nature, renovating, sustaining and conducting her processes and manifestations under the veil of Matter, some men of the highest culture still cling to atheism. To what is this attributable? Lord Bacon says: "A little philosophy inclineth men's minds to atheism, but depth in philosophy bringeth men's minds about to religion, for, while the mind of man looketh upon second causes scattered, it may sometimes rest in them and go no further, but when it beholdeth the chain of them, confederate and linked together, it must needs fly to Providence and Deity."[§]

And Sergeant Cox, the well-known Psychologist, says: "Self-conceit that will not own error—obstinacy that prides itself on never changing an opinion once formed—vanity that flatters itself by thinking how much more clever am I who will not be imposed upon than my neighbour—interest, real or supposed, in the established falsehood—personal inconvenience

* Fragments of Science, Vol. II, p. 384.

† "The History of Creation," Vol. I, pp. 70-1.

‡ "The Evolution of Man," Vol. II, p. 455.

§ Quoted from "The Body and Mind," by Prof. Maudesley p. 333.

in the recognition of unpopular truth—these are the familiar sources of scientific scepticism.”*

36. But strangely, yet rightly enough, this anomaly of rationalism, *i.e.*, Atheism, Professor Tyndall, scarcely perhaps realizing all his confession involves, ascribes to the morbidness and imbecility of the human intellect in this candid language: “I have noticed during years of self-observation that *it is not in hours of clearness and vigor* that the doctrine of Material Atheism commends itself to my mind; that *in the presence of stronger and healthier thought* it ever dissolves and disappears, as *offering no solution of the mystery* in which we dwell, and of which we form a part.”†

Sadducism! is then at last unveiled; it is not the product of *healthy and vigorous* reasoning faculties. Its oracular utterances are at best the morbid delusions of a sickly intellect. As a sympathizer with the diseased and weak, I prescribe for all minds obsessed with this chimera, large doses of Theosophy, the only efficacious tonic in such a case, and guarantee, if my prescription be followed, a speedy and lasting cure of even this most obstinate cerebral affection.

37. The next question, my Brothers, is: Is Matter eternal? By Matter I mean the first emanations, or individuations, or “vortex rings” of the substance of the Absolute; and the aggregates of these emanations. I shall further on discuss at some length the evolution of Matter from the Essence of the Universal Potential Force or Soul.

To reply to our query: Matter is not eternal. For, it proves, from its very physical constitution and conditions of existence, to be a thing of time, and not of eternity. Philosophers do, most of them, dogmatize that the aggregations of Matter alone are the productions of time, but that Atoms, which they call the ultimate particles or units of Matter, are indestructible and eternal. But is this

* “Mechanism of Man,” Vol. I, p. 35.

† Fragments of Science, Vol. II, p. 206.

a matter of fact, a truth of Nature ? In my opinion it certainly is not. Let the Doctrine of the Past Eternity of Atoms, however, be granted for the sake of argument. Then, the Atoms must have either remained quiescent or stationary in the past Eternity, beginning to move in time only, or they must have been moving throughout all the infinity of Past Time.

38. The former of these hypotheses presents many unanswerable objections. We know that Energy (manifested as Gravitation, Cohesion, Chemical Affinity, Electricity, Magnetism, Vital and Psychic Force, &c.,) is always busy in Nature, moving Matter perpetually in Space. This being so, how could Matter have remained motionless in Space during any period of time ? Was there then no Force at work prior to the Era of the Motion of Matter ? Is it only a generation of time ? Is it not Eternal ? Did Matter antedate Force ? When did Force come into being then ? And how ? Or, is it conceivable that, despite the continued existence of Matter, there have been times, or indeed any time, when Force, like some arbitrary and fickle mortal, declined or neglected to act upon it ? But, again, Atoms are space-occupying bodies, and hence have dimensions, that is, length, breadth, and thickness. Whatever have length, breadth and thickness are capable of divisibility. Therefore Atoms are divisible. To cut or dissolve them, the instruments of the mechanist or the chemist may be of no avail ; but yet there is one subjective instrument wherewith the division can be accomplished, *viz.*, the Mind. Our *Mind can conceive* Atoms as divided into still minuter parts. "An atom of pure iron," says Professor Jevons, "is probably a far more complicated system than that of the planets and their satellites. The smallest particle of solid substance will consist of a great number of such stellar systems united in regular order, communicating with it in some manner yet wholly incomprehensible.*"

* The Principles of Science, 3rd Ed., p. 756.

Thus we see that Atoms are complex entities, composed of constituents. Now, how could the integrant corpuscles of the Atoms have been attracted and held together into such corporealities as these (Atoms), unless some form of Energy, Gravitation or Cohesion already operated on them? We see now that the co-existence of Matter and Force, if not the pre-existence of the latter, is a cosmical necessity. There could, therefore, never have been a time when Nature *minus* Force, or Matter *per se*, alone existed.

39. The hypothesis, however, that Matter has moved from all Eternity, (and this follows from what I have just shown if Matter be eternal) is by no means tenable. Science says that the Cosmic systems were evolved from nebulous clouds. This implies that the Period of Diffused Matter antedated that of Concrete Matter. It can avail naught here to say that the cycles of the evolutions and dissolutions of the astronomical systems have occurred and recurred successively in infinite series from all time, and that we cannot, therefore, reach with anything like precision the time anterior to the evolution of the First Cosmos. For, the question is not how many such cosmic cycles have run their races from eternity, but whether the Universe was at all evolved out of chaotic matter. The very conception of the evolution of the stellar systems involves also the correlative conceptions of the existence of something *out* of which, and of some time at which they were evolved. Therefore, before a Cosmos appears in space, there must be a time when Matter is in the state of nebulous dust diffused in Space. We need concern ourselves in no way with the possible infinite repetitions of the evolution and dissolution of Universes; what is true of one is true of all. It is quite clear from what has been already said that the development of any and every Cosmos must have been an event of time. Of course, that time continued backwards to the epoch of the genesis of the first Cosmic congerie of Stellar Systems, (if we *can* conceive a *first*, which is doubtful) would be synonymous with

infinity ; for, we can even mentally reach no boundary of duration beyond which it becomes possible to conceive the non-existence of time ; but this is beside the question, for whether you conceive one single universe, or an infinite series of these, one or each must have been preceded by a Pre-Cosmic period, during which (under the hypothesis) Atoms must have been moving in Space without attracting each other. For with their attraction the development of the Universe commenced, but this development was admitted an event of time, and, therefore, there must have been a prior time when development had not commenced, and, therefore, the Atoms did not attract each other. But if there was any time at which the Atoms were moving in Space without attracting each other, how could any such attraction supervene at any subsequent time ? The very fact that Matter was moving in Space at any time without developing an Universe, or commencing this, is itself an irrefragable evidence that the Atoms did not attract each other. Because, if they did so at all, they could not choose, but must have commenced aggregating into a Material Universe for the very same reasons which afterwards led to their doing so. This fact, namely, that the Atoms did not exercise attraction during the Pre-Cosmic Period, or Periods, irrefutably proves that the Gravital Force was not at work during that Period or Periods ; for, if it was so, the Atoms could not but have attracted each other. If the Gravitation-Force did not exercise its influence during any period of time, while Matter was already in Space, it is not likely that it could have done so at any subsequent period. Accordingly, the whole Universe should have continued to be in a state of chaos throughout Eternity. But we know it as a fact that Cosmos has evolved out of chaos. And why so ? Because, the Force of Gravity is, we know, a concomitant or correlate of Matter ; and, consequently, the latter could not but attract and agglomerate during any and every period of its existence in Space. Therefore, Atoms could not exist in Space without forthwith attracting each other ; and could

not attract each other without forthwith tending towards, and commencing, the process of agglomeration ; and could not agglomerate without, in the course of a definite (definite, because the laws of Nature are always constant and immutable) and limited (limited, because definite in its work) period of time, evolving Cosmic Systems. How could it, then, be possible for the Atoms to remain diffused in Space during any Pre-Cosmic Period ; or, again, if Atoms *have* been moving from all Eternity in Space, how could there be any Pre-Cosmic Period ? And yet the material Universe being admittedly a product of time, there *must* have been such a period. It has, therefore, been shewn above (1), that the Evolution of the Universe, or of each of the entire series of Universes, if this view be preferred, began in time ; and (2), that the Atoms could not have been moving in space during any Chaotic Pre-Cosmic Period, without at once attracting each other, and so commencing the Evolution of a Cosmos. Consequently if Atoms had been moving in Space from all Eternity, the development of Cosmos must have commenced in Eternity ; but the development of the Cosmos is admittedly an event of time, and therefore Matter, too, could not have been moving throughout Eternity but must have begun motion in time.

40. Now, therefore, we have found that if Matter is eternal, it must have either begun to move in time, or have been moving from all eternity ; as regards the former we have shown that its movement must have been coeval with its existence, and as regards the latter, that its motion must have begun in time. It follows, therefore, indisputably that its existence also began in time, and that consequently it is not eternal.

41. The Theory of the Past Eternity of Matter can also be refuted thus, though this is a line of argument that many would reject.

The Atom is a space-occupying body, and hence is capable of divisibility. The process of divisibility

can be continued all through eternity ; and yet the ultimate constituents will always be as far off as ever ; because, whatever particles we can think of as the final constituents of the Atom, can be conceived as divided into still minuter particles, they (*i.e.*, the final constituents) being still extended existences. A body can only be asserted to have been sub-divided into its ultimates, when each of those ultimates is an absolute or geometrical point. But Matter can never be divided into such zero-magnitudes, for the reason that something can never resolve into nothing, just in the same way that nothing can, under no conditions, evolve into something. Therefore, the whole eternity cannot suffice for the final disintegration of the Atom. It is a truism, that that which cannot be decomposed in a whole eternity cannot equally be composed into what it is during all that eternity. Therefore, the ultimate (?) particles, into which the Atom could not be split up though unremittingly divided, sub-divided, sub-sub-divided, &c., throughout eternity, cannot have been aggregated into that Atom in the course of all the past time. Consequently no such bodies as Atoms could ever have come into being, much less any aggregates of them (Atoms), such as molecules, suns, &c., &c. But are there no Atoms in Nature ; and no things constituted of them ? Yes ; there are, indeed. Now it has been shewn (1), that Atoms are compound bodies capable of infinite divisibility ; and (2), that they could not have been aggregated as such even after an infinite series of permutations and combinations. The conclusion is that they were never aggregated as such, but came into existence in time, as aggregates of definite and not infinitesimally small sized particles.

It may be well to explain here that these ultimate but definite sized particles, of which the Atoms of science are aggregates, are in reality simply the first emanations precipitated from the Substance of the Absolute being that pervades all the Infinity of Space through all the Eternity of Time. You will ask me if the Atoms are not units of Matter, what else

are? I tell you the particles of Ether, in which Atoms float, are the real units of Matter out of which the Atoms were compounded and evolved. The Ethereal particles are however the ultimate units of Matter, not because they are the minutest possible particles, because we can *conceive* particles, even minuter than these, and because, being extended bodies, are capable as such of further division, but on the ground they are the first emanation from the Essence of the Infinite Potential Force.

I shall speak at length of this subject in my discussion of the Theory of the Evolution of Matter from the substance of the Infinite Potential Force or Universal Soul.

42. Let us next see if Matter can be a thing of the future eternity. It has been proved above that Matter must have had its origin at some epoch in the past. It is an axiom with science that whatever originates in time, decays, dissolves, and disappears also in time. Because, whatever did not exist from Eternity, but appeared only in time, must, in virtue of the inviolate Law of Continuity, be the outcome of the co-and-inter-actions of what had been in existence prior to the epoch of their manifestations. What were existent during the Pre-Material age were the Cosmic Forces, which are themselves only different kinetic modes or affections of the One Eternal Potential Force.

Material is, therefore, but the phenomenal expression of a tendency to a maximum of a certain mode of the motions of those Forces ; and can continue in existence only so long as such a mode lasts ; but, when that mode ceases, must disintegrate and become reabsorbed into the parent energy. Force is eternal ; but the state of its activity in a certain way is only ephemeral, absolutely considered. Therefore Matter will be entirely dissolved, and will dissappear some time in the Future Eternity.

It has been shewn before that Matter came into being at some time in the past ; and it is now proved that it must become extinct at some time in the future. Wherefore, *Matter is not eternal.*

43. We may demonstrate the same proposition another way.

Physical Science says that Energy and Matter are the only two elements that constitute the Phenomenal Universe. Of these two, Energy transmutes itself into diverse forms, such as Gravity, Cohesion, Heat, Light, Electricity, Magnetism, and various occult Forces in its dealings with the world of Matter. These Forces impel the ultimate units of substance to aggregate into Atoms, Atoms into Molecules, and Molecules into all the varying objects that compose the objective side of Nature. Thus we see plainly it is only by these Forces that the Visible Universe continues to exist and manifest concretely ; and without their help it would resolve into the primeval homogeneous units, which, as will be shewn hereafter, are but "Centres of Forces" and ultimately vanish into the Eternal Force. Nature, therefore, depends upon the high class available potential energy possessed by her for her concrete existence, but that energy is incessantly little by little becoming degraded in *quality*, and being dissipated into the infinity of space, thus decreasing in *quantity*. For, Nature undergoes perpetual vicissitudes or metamorphoses for the production of her multifarious phenomena, and these vicissitudes or changes are kept up by the equally incessant motions of Matter. Matter, while it moves in Space, encounters ethereal and aerial frictions and percussions, which convert its force into heat. Hence the useful potential energy of Matter is thus inevitably and constantly getting transformed and degraded into the useless kinetic heat-energy, and radiated into the Ether. So, in the course of possibly countless ages, the entire stock of Cosmic Force conserved in the Material Universe will become dissipated and exhausted ; and Matter, no longer propelled by any form of energy, will become cold, motionless and functionally effete. Philosophers say that in consequence of this unavoidable and constant deterioration and dissipation of Force, Satellites will lose their rotational energy, and, spirally approaching their respective Planets, will some day fall into, and

become amalgamated with them. These Planets again will, in their turn, some time later on, become engulfed in their respective Suns ; and these Suns (the so-called fixed Stars) again will, at some still later time, collide with, and fall into one another. Consequently the whole Material Universe will become ultimately one huge cold inert mass, and continue in that state for evermore.

44. Will the " Final Catastrophe," as this is called, stop here in this stage of decay as some Scientists think it will? No. Not at all ; because what guarantee is there that the Energy of Cosmos will be radiated away only so much that, and as long as, the Satellites, and Planets, and Stars, lose their orbital energy and coalesce into one body ; and no more, and no longer? Can any one bid the process of the Cosmic Decay go " thus far, and no farther " ? No. Why should they suffer loss in their *vis viva* at all? Why, because, firstly, they move in the Ether-Ocean ; secondly, phenomena of electricity take place upon their surfaces ; and, thirdly, periodical tides, aerial and oceanic, occur upon such of them as have atmospheres around and oceans upon them. These circumstances lead to frictions and collisions, molar as well as molecular, which result in the generation and radiation of heat, whose energy is supplied by them (the several heavenly bodies). Is it not so? Surely, then, Motion, in any shape, will, irrespective of the forms and magnitudes of the bodies that move, be they Atoms, or Molecules, or Satellites, or Planets, or Suns, convert their energy into heat, which must at once be appropriated by the Ether. Let us consider whether there will be any motions among the Molecules of the Huge Mass of the day of the " Final Catastrophe." What will that Mass be? Will its Molecules actually touch each the other? No. They will stand at some distances from each other, that is to say, there will be interspaces among the constituent particles of the Mass. And those interspaces will be occupied by Ether. The Ether will thus pervade the whole Mass, or, in other words,

its molecules will float in the Ether-Ocean. This Ocean is the medium of all the Forces. When, therefore, this medium is agitated or disturbed by one or more of the Forces, fluctuations will be produced in it ; and when it fluctuates, the Molecules that compose the Mass will also move, because of their floating in it. And as they move they will encounter ethereal frictions, &c. The Molecules, therefore, of the whole Mass will move, encounter frictions, generate heat and light from their own energy, and dissipate it into Space during the long long lapse of Time. It is the highest and grandest generalization of Science that the various Cosmic Forces, such as Gravity, Cohesion, Heat, &c., are only various forms of one Force. And many authorities, Faraday, Laplace, Jevons, Graham, Spencer, Davy, Winslow and others might be quoted as upholding this generalization. Hence the Doctrine of the Correlation of the Physical Forces. When, therefore, all the available Molecular Energy shall have been eventually exhausted in this way, the Forces of Cohesion and Gravitation will also disappear ; and, consequently, the Molecules will not longer attract each other. Hence the whole Mass will be not a compact body, but an irregular and loose group or groups of *free* Molecules.

Molecules, again, are aggregates or systems of Atoms with interspaces between their constituents. These interspaces will be filled by Ether ; or, as said above respecting the whole Mass, the Atoms of the Molecule will be floating in the Ethereal Fluid. Now, the same causes that led to the Huge Mass becoming disintegrated into Molecules, will, in time, cause the Molecules also to become dissolved into Atoms.

And Atoms, again, according to Professor Jevons, every one of them, consist of many stellar systems, that is, are composed of many still minuter corpuscles ; and these are perpetually rotating upon their own axis, and revolving round their centres.

"There is reason to believe," says the Professor, "that each constituent of the Atom goes through

an orbit in the millionth part of the twinkling of an eye. In each revolution it is successively or simultaneously under the influence of many other constituents, or possibly comes into collision with them. It is no exaggeration to say that mathematicians have not the least notion of the way in which they could successfully attack so difficult a problem of Forces and Motions."*

We thus see that the constituents of Atoms are constantly in motion, encountering frictions and collisions, and are as constantly transforming their Atomic Energy into heat and radiating it into the infinity of Space. The Atoms then will lose one day their power of attraction, and become resolved into their integrant parts. And these parts again will in their turn decompose into still finer corpuscles for the same cause, and so on, until Matter will be finally dissolved into the Primordial Monads, that is, into the Infinite Force itself.

45. No doubt this will not happen the first time the universe agglomerates. Philosophers argue, and apparently with good reason, that when all the astronomical spheres incorporate into one single Mass, that Mass will be in part converted into nebulous dust consequent upon the several collisions, and the remainder dissolved into Atoms, and evaporated and dispersed into space by the intense heat necessarily evolved. And as the heat will be radiated into the Ether, the Force of Gravity will assert its power, propel one nebulous particle towards the other, and so condense all the space-strewn particles into a nebulous mass, and evolve out of it countless stellar systems again; and so on. True, but this cannot be the case after every Universal Dissolution, because the potential energy of Gravity must become more and more reduced after each Universal Dissolution, until at length it will have been altogether spent and exhausted. The totality of the latent Force possessed by the Material Uni-

* "The Principles of Science," p. 756.

verse in the beginning of the evolution of a Cosmos, is partially degraded into heat-force, and dissipated, and consequently decreased at the time of the dissolution of that Cosmos, and the quantity of the Cosmic Force that remains at the beginning of the next Cosmos, will, for the same reason, have still further decreased at the time of its Dissolution, and so on, the Cosmic energy continuing to degrade, dissipate, and decrease from one Cosmic Cycle to another till eventually it will be entirely exhausted, and all Matter will then, as already stated, pass away out of the Visible or Phenomenal Universe.

46. Possibly it may be urged that Gravity is a thing *per se* not one of the correlated forces, and that consequently intermolecular attraction will never cease. But is this so? What do our scientists say? Faraday says in his "Experimental Researches in Electricity": "Gravity. Surely this force must be capable of an experimental relation to electricity, magnetism, and the other forces, so as to bind it up with them in reciprocal action and equivalent effect.*"

"If we grant," says Mr. Hudson Tuttle, "electricity to be vibrations in the same ether as light, and that magnetism is identical in its origin, we have already before us the whole subject of Gravitation. The attraction of particles in solution or affinity, the attraction of cohesion, attraction and repulsion and gravity of worlds are resultants of one common cause.†"

"It is not improbable that the ether may have a property," say Professors Stewart and Tait, "such that the gravitation action, which appears to be between particles of matter, may merely be the visible result of a tendency to a minimum of some affection (electricity, heat, &c., are likewise diverse affections of the same fluid) of the fluid (Ether) in which they are immersed.‡"

* Quoted from Professor Jevons' "Principles of Science," p. 589.

† The Arcana of Nature, Vol. II, p. 110.

‡ Unseen Universe, p. 153.

Professor Winslow says : " Since they (*i.e.*, secondary forces) spring from motion, are equivalents of motion and convertible back again into motion as all dynamical phenomena illustrate ; and since there can be no motion or mechanical energy without repulsion, which is the essential principle of re-action, elasticity, &c., they, therefore, become convertible into equivalents of this force ; and since this force is the co-ordinate and co-efficient of attraction, they finally disclose their special quantitative relations to Gravitation itself. Thus, we at last discover that all the forces of nature are linked together, and that they appear and vanish, blend, separate, and assume equivalents as the economy and mechanism of material being demand throughout the universe of things.*"

Mr. Grove, in his celebrated work entitled "Correlation of Physical Forces," maintains the same truth. We see thus that the highest authorities hold that Gravity is one of the Correlated Physical Forces. If not, what is it then ? Is it an isolated Cosmic activity ? Is isolation then possible in Nature whose phenomena, occurring in the endless train of causation, are so correlated to one another as to form one harmonious whole ? No, never. Natural Philosophy teaches us that the whole universe is order, equilibrium and unity ; and that there can occur in it no manifestation whether of matter or of force, but must be connected in some way or other with all the rest of Nature. Isolation is, therefore, unnatural and impossible in Cosmos ; and Gravitation must necessarily be correlated to all other forces of Cosmos.

According to the doctrine of the Correlation of the Physical Forces, the various visible modes of the One Potential Force, such as Light, Gravity, Magnetism, Cohesion, &c., are transformable into one another. The Force of Gravitation is, therefore, convertible into its kindred forces, *i.e.*, Heat-force, Light-force, &c. ; and is in those states liable to be radiated through space, never more to return to its

* "Force and Nature," p. 278.

source. "It will be at once seen," says Professor Tyndall, "that Gravity may be said to be convertible into heat, that it is in reality no more an outstanding and inconvertible agent, as it is sometimes stated to be, than is chemical affinity. By the exertion of a certain pull through a certain space, a body is caused to clash with a certain definite velocity against the earth. Heat is thereby developed.*"

So, when all other Cosmic Energies are appropriated by the Ether in the shape of Heat or Light from the Concrete Universe, Gravity also will disappear with them, as a form and part of that Energy.

47. The proposition of the convertibility of the Force of Gravitation into the other Cosmic Forces can also be inferred on other grounds. In the Chaotic period of the Material Universe, there were only cold Space and cold Atoms. These latter, impelled by the power of Gravitation, dashed against each other, and so developed Heat. This is the evolution of Heat in Cosmos, whose radiation figured so conspicuously in the formation of the Physical Universe. And Heat, we know, is only a mode of motion. Motion of what? Of Ether. According to the Law of the Conservation of Force, no new motion or force could make its advent in Nature, but at the equivalent expenditure of some other pre-existent motion or force. It may be asked here: Whence did Ether derive its Heat-Motion? From the prior motions of Atoms, of course. If not, the origin of Heat, *i.e.*, the Heat-motion of Ether, would be, according to the canons of Science, utterly impossible; or, must have been a creation by miracle. Is miracle, then, possible in Nature, which is governed by law and not by caprice? Is it not quite *unnatural*? The Motion of Heat must have, therefore, been transformed or borrowed from the motion of the Atoms, which was produced by the Force of Attraction or Gravitation. But Atoms could not transmute their Motion to the Ether, without losing a portion of their kinetic, and

* Fragments of Science, Vol. I, p. 25.

thereby potential, energy. So, as the Ether absorbed the Atomic Motion, the latent Force of Gravity of Matter would be gradually converted into actual Force, and dissipated in space. Or, if the Force of Gravity was not translated into the Motion of Ether, neither Heat nor any other Cosmic Force could have been originated. Consequently, no Concrete World, such as now exists, could have been evolved. Cold Atoms alone would continue to pervade in cold Space throughout all Eternity. The right inference from these considerations is that the Potentiality of the Force of Gravitation is transmutable into Heat and Light, and liable in these states to be radiated into the Ether. It may be urged that, if Atoms impart motion to Ether, they must become so much the less energetic and slower in their motion, and consequently cease moving after a comparatively brief period. But no : the motion we cognize in their oscillations is only dynamical ; it is a slow, incessant and insensible translation into actuality of motion of the potentiality of motion stored up in Matter in the shape of Gravitation. The constant vibrations of Atoms, by which the Force of Gravitation is being constantly transformed into the thermo-luminous forces, will continue until the entire fund of the energy inherent in Matter has been expended. As the latent force of Matter, (which is after all only the sum of the latent coherent force of the component particles) becomes developed into dynamic force, its constituents, namely Atoms, will be gradually disintegrated, and at length resolved into the essence of the Absolute Statico-Dynamic Force.

48. Here I must guard myself against the misapprehension, that, when I assert that Force will decrease and disappear, I ignore the Law of the Conservation of Energy. Far otherwise. By this statement I only mean that Force will gradually lessen in, and ultimately vanish from the Concrete Universe, but will be received into and stored up in Space, *i.e.*, in the Abstract Universe.

49. To resume: When all the Heavenly bodies therefore collide, and are reduced to a mere nebulous mass, after the whole Cosmic Energy has been finally divorced from Matter, the nebulous particles or Atoms will not attract each other, and, so to say, coagulate, but will remain independent and separate bodies in Space; but these particles themselves will, as shown before, ultimately resolve and vanish into Force. Hence Matter must come to an end at some time in the future. It was shown above that Matter must have had its origin in time; and now it is shewn that it must come to an end in time. Therefore, *Matter is not eternal.*

50. This Doctrine of the Eternity of Matter, or Indestructibility of Material, finds no place in the philosophical Systems of many well-known Scientists—Clerk Maxwell, Stewart, Tait, Jevons, Spencer, Crookes and others. “We maintain,” say Professors Stewart and Tait, “that the visible universe—that is to say the universe of Atoms—must have had its origin in time..... But if there be any element of decay in the material substance of the visible universe, the assumption of its present infinity will not enable us to predicate its future eternity.*

“As a separate existence itself the visible universe will ultimately disappear, so that we shall have no huge useless inert mass existing in far remote ages to remind the passer-by of a species of Matter which will then have become long since out of date and functionally effete. Why should not the universe bury its dead out of sight?”†

And again: “To our minds it appears no less false to pronounce eternal *that aggregation we call the Atom* than it would be to pronounce eternal that aggregation we call the *Sun*.”‡

Professor Jevons writes: “I demur to the assumption that there is any necessary truth even in such

* “The Unseen Universe,” p. 9.

† *Ibid.*, p. 157.

‡ *Ibid.*, p. 214.

fundamental laws of nature as the Indestructibility of Matter* &c....."

"The same Power, which created material nature, might, so far as I can see, create additions to it, or annihilate portions which do exist. Such events are in a certain sense inconceivable to us; yet they are no more inconceivable than the existence of the world as it is. The Indestructibility of Matter, &c., are very probable scientific hypotheses, which accord satisfactorily with experiments of scientific men during a few years past, but it would be gross misconception of scientific inference to suppose that they are certain in the sense that a proposition in geometry is certain."†

Herbert Spencer says: "It remains only to point out that, while the genesis of the Solar System, and of countless other systems like it, is thus rendered comprehensible, the ultimate mystery continues as great as ever. *The problem of existence is not solved: it is simply removed further back. The Nebular Hypothesis throws no light on the origin of diffused Matter; and diffused Matter as much needs accounting for as concrete Matter. The genesis of an Atom is not easier to conceive than the genesis of a Planet.*"‡

Again he says: "An Ultimate Cause, whence proceed alike what we call the Material Universe and what we call Mind."§

In a communication to the Royal Society in the year 1879, Mr. Crookes says: "That which we call Matter is nothing more than the effect upon our senses of the movements of molecules. The space covered by the motion of molecules has no more right to be called Matter than the air, traversed by a rifle-bullet, has to be called lead. From this point of view, then, Matter is but a mode of motion; at the absolute zero of temperature the inter-molecular

* The Principles of Science, p. 738.

† *Ibid*, p. 766.

‡ "Essays: Scientific, Political, and Speculative," Vol. I, p. 298.

§ *Ibid*, Vol. III, p. 300.

movement would stop, and Matter, as we know it, would cease to exist.”*

Professor Clerk-Maxwell says : “None of the processes of Nature, since the time when Nature began, have produced the slightest difference in the properties of any molecule. We are, therefore, unable to ascribe either the existence of the molecules, or the identity of their properties, to the operation of any of the causes which we call natural. The quality of each molecule gives it the essential character of a manufactured article, and precludes the idea of its being eternal and self-existent.”†

51. I shall now discuss the problem of Force and Matter. Force may be related to Matter in any of these four ways :—*1stly*, it may be an extraneous power to Matter, acting upon it from without ; *2ndly*, it may be an inherent power in Matter, influencing it from within, but yet distinct from the substance of Matter ; *3rdly*, it may be an innate power in Matter, influencing it from within, and not distinct from the substance of Matter ; or, *4thly*, it may be a function of the substance of Matter.

52. *Firstly*.—Is Force a power extraneous to Matter, impelling it from without? We have first to consider whether such a power is an unextended, *i.e.* abstract, principle, or a physical, *i.e.*, space-occupying entity. Were it an unextended principle, we cannot conceive how a certain influence that does not occupy space can exert any power upon a thing that occupies space. For, that which occupies no space can have no existence ; that which has no existence can possess no power ; that which possesses no power can display no activity ; and that which displays no activity can exercise no influence (upon any *thing*). The hypothesis that Force is an unextended principle, is, therefore, quite inconceivable. Therefore, Force must be a physi-

* Quoted from the “Scientific Basis of Spiritualism,” by Epes Sargent, p. 265.

† *Nature*, Vol. VIII, p. 441.

cal existence; and this physical existence does, according to the present hypothesis, influence Matter from without. Now, if there be in Nature one kind of physical existence, *viz.* Force, that can move by itself and influence another body, there can be no absurdity in recognizing that another kind of physical existence, *viz.* Matter, can also move by itself. It must not be forgotten that we first *arbitrarily assumed* that Matter is inert, and cannot move unless when acted upon; and to account for its motion, which is inseparably associated with its existence (for Matter is never seen or known to be without motion, which fact itself is a strong refutation of the Theory of the Inertness of Matter), we again *arbitrarily assumed* some power as existing outside Matter, and causing its motions. But this Force or power is, we are forced to recognize, as much a physical entity as Matter. We have thus come round the circumference of the circle; and in the end find ourselves precisely whence we took our first start—we have simply begged the whole question! To prevent unnecessary circumlocution, it may fairly be asked, what data have we for supposing that Matter is dead and passive, unless it be said that it is an extended body, and must, therefore, be moved by some foreign power? If, on the ground of being extended or physical, the power of motion be denied, or, more correctly, withdrawn from Matter, how can it be argued consistently with logic that Force, which is also, as shewn above, as much substantial in constitution as Matter has motivity in it? It is very clearly deducible from these considerations that motivity need not be sought outside Matter, that is to say, Force is inside, or inherent in Matter. Strangely enough, the hypothesis, which says that Force is an external power to Matter, is thus logically resolved into the hypothesis which says that Force is an innate power of Matter.

53. *Secondly.*—Is Force an inherent power, impelling Matter from within, but distinct from the sub-

stance of Matter? If so then, in other words, Force and Matter are two separate entities. Each of these must be a substantial existence. Science will interpose here and say that Force is not a real existence, but is merely an "*impulse*," "*power*," or "*influence*." It is a noteworthy phenomenon in Western Science that, with all her "brag and bluster" about "Inductive Inquiry," "Experimental Method" and "Logical Precision," she still permits a metaphysic or mythic vagueness to hang about the only real factors of knowledge, to wit Force and Matter. Why is she still synthetic and deductive in her solution of the terrible problem of Force and Matter when in all other cases she is invariably so severely analytic and inductive? Why does she scruple to melt Matter and Force in the hottest crucible of her extraordinary powers of induction and ratiocination, and resolve them into their common ultimate element, and boldly take the consequences? Perhaps she is afraid lest she might, in doing so, be brought face to face with the spiritual source of All Things.

To resume: According to this theory, which says Force is inherent in, but is yet not the substance of Matter, Matter is equal to Substance or Extension, *plus* Force. Matter having substance or extension merely, is "inert" or "dead." Therefore, whatsoever engenders motion in it, is other than its substance or body. And that principle other than its substance is the Inherent Force. Call this principle an "impulse," "force," "influence" or by any other appellation Science may choose to denominate it—only she must not forget that that principle is not a non-existence. If non-existent, it cannot exert any influence; because it cannot do so while it itself does not exist. Therefore, that principle must exist; if it exists, it must occupy space; if it occupies space, it must have dimensions; and if it has dimensions, it must be a substantial existence. Wherefore, Force is a substantial existence, as much as Matter. Force and Matter are, according to the present hypotheses, interlacing each other. Here a series of the gravest questions present themselves to

the inquiring mind. If Force and Matter be space-filling entities, and if Force be inherent in Matter, then these two must have intermixed at some time in the past. When did this intermixture take place? Why? And how? Science says to us that Force and Matter cannot *per se* present any phenomenon of motion, unless in association with each other. Accordingly, during the period prior to their conjunction, Matter *per se* must have been remaining inactive with no power to impel it; and Force *per se* must have also been remaining inactive with no vehicle for its conveyance. But to produce motion, they must have previously united; and to unite, they must have previously moved towards each other. But they could not have moved, being, each of them, unable to do so *per se*. What then induced their subsequent amalgamation? It may be replied here that they never once existed separately, but unitedly from all Eternity. If so, why then distinguish between them, and assert they are two different existences? Unless we see two bodies existing independently of each other, or have valid reasons for inferring that at some previous period they so existed, or unless we can disengage them now by some means mechanical or chemical, or can conceive that they can ever in the future part company, we have no grounds for conceiving them distinct, and none, therefore, for maintaining the dualism of Matter and Force. Clearly things that have existed as a unity from all time, and cannot be separated, have no claim to be considered and classified as more than one existence. "Force and Matter" is, then, but a useless periphrase to denote one and the same thing (namely, Force). Therefore they are not a duality, but only unity and identity. Thus we see the hypothesis, which postulates that Force is innate in, but different from, the substance of Matter, is reduced to the hypothesis which says.

54. *Thirdly*.—Is Force an inherent power of Matter, but not distinct from the substance of Matter? If Force is not distinct from the substance of Matter,

then it is the substance of Matter ; but the same substance of Matter is Matter itself, because, Matter *minus* its substance or extension, is naught, is a non-entity. We see thus that the substance of Matter is Force ; and the same substance* is Matter also. Therefore, Matter is Force.

55. *Fourthly.*—Is Force a function of the substance of Matter ? This is the conception of Cosmos of the Monistic Philosophy. Häckel, Bain, Tyndall, Spencer and a host of other scientific celebrities regard Matter and Force as two faces of one and the same thing. Among others, Professor Häckel says : “According to the Materialistic conception of the Universe, Matter, or Substance, precedes motion or active force. According to the spiritualistic conception of the universe, on the contrary, active Force, or Motion precedes Matter. Both views are dualistic, and we hold them both to be equally false. A contrast to both views is presented in the *monistic* philosophy, which can as little believe in Force without Matter as in Matter without Force. As Goethe says : “Matter can never exist and act without Spirit ; neither can Spirit without Matter.”†

The above monistic exposition clearly means that Matter and Force are co-eval and co-existent, and the latter is not a distinct entity from the substance of the former, but is its function merely. Now, the very conception of the function of the material substance presupposes the dynamic activity or motion of the substance, or the constituents of the substance of Matter ; for, without any previous Motion, how can any function be performed ? And the dynamic activity or motion of the substance of Matter presupposes some potential motive energy in it, for without any potential motivity, how can there be

* Here I beg leave to say that by the substance of Matter is meant its size, shape, &c., *i.e.*, its primary qualities. I make no mention of the secondary qualities of Matter, because they are merely the affections or accidents of the substance of Matter. Therefore, when I speak of its substance, this term includes both the primary and the secondary qualities of Matter.

† The Evolution of Man, Vol. II, p. 456.

produced actual motion? Inversely, there must be some latent motor energy in the substance of Matter for the genesis of motion in and of it, and there must be motion in the substance of Matter for the performance of its function.

Therefore, function is simply the phenomenal effect of the latent cause, namely, Force; but never Force itself. To say, then, that Force is the function of the substance of Matter, is tantamount to saying that the cause is the effect, which is absurd. This potential Energy, which is in Matter, is a physical existence. If not, it cannot, as shewn before, produce any impression whatsoever upon and in the substance of Matter. According to the hypothesis there is nothing in the body of Matter, but its substance. Therefore, the potential Energy of the substance of Matter is the substance of Matter. But the same substance of Matter is itself Matter. Wherefore, Matter is its own potential power of motion; that is, Matter is Force.

56. Now we have solved the problem of Force and Matter in four different ways, which are the only possible ones; but all these different solutions give out but one and the same result, namely, Matter is Force. It would be well not to confound the proposition, Matter is Force, with its converse proposition Force is Matter (merely). Because, Matter is only a form or mode of Force, whereas Force has various forms, such, for instance, as Electricity, Magnetism, Light, Matter, &c., &c.

57. Now that it has been shown that Matter is Force, we have next to consider what Force is. Force is the Intelligent Primordial Principle, which pervades all the Infinity of Space—nay, to speak more correctly and philosophically, which is Space itself.

58. Is Infinite Space, then, something? Yes. Infinite Space is Infinite Something. When we say Space, our idea is a comprehensive one, including all affirmation and excluding all negation. Our idea of

Space is the product of the endless continuity of conceptions, beginning from a centre and circling away from around that centre towards a circumference having infinity for the radius. In other words, our conception of Space is the totality of our comprehension of Space aggregated of a series of finite conceptions, continued *ad-infinitum*. We first conceive a certain volume of Space, and in so far as our comprehension of the extent of Space at one mental grasp is concerned, our idea of that space is one of definite and affirmative existence. Let this conception constitute the first, or, for us, central cell of the Infinity of Space. If we allow our imagination to wander outside this first sphere, and enter the next surrounding space bounding this first, our conception of as much of that space as our mind can measure at once is one of positive definiteness. So, our imagination can continue its survey of the Illimitable Space, bringing definite Space after definite Space into our comprehension, until it encompasses the whole during the course of a whole eternity. As our existence is trammelled by insuperable material conditions, we are forced to plod on during all eternity. The fact that all space could be brought under certain comprehension, though, of course, bit by bit in the course of an eternity, is none the less certain for that. Whatever can be reduced to comprehension is a stern reality. Therefore Infinite Space is a positive Infinite Existence.

59. Again, if Infinite Space is not something, then it is a vacuum, a nothing, a non-existence. If Space is a non-existence, that is, if it does not exist, where then does Force work and Matter move? It may be replied that by saying Space is a vacuum, it is not meant that it is nothing, but that it has nothing; but what is this "it" which *is not* nothing, but which *has* nothing? And what are the conditions of existence and attributes of this "it"? If the "it" has no attributes, &c., then it is a non-existence. If non-existent, how can a non-existence be called "it"? And how can that "it," that is a non-existence,

have nothing (or anything)? Space is, therefore, something.

And, again, if something does not pervade all space then there must be nothing in the whole or a portion of Space. It is contradiction in terms to say that nothing, *i.e.*, a thing that has no existence, is or exists in Space, for when we say there is nothing in space, we say a thing that does *not* exist *does* exist in space. But how can a thing exist and not exist at once? Can the counter-attributes, being and not being, be co-eval and co-existent? The Fundamental Law of Thought, *viz.*, the Law of Contradiction, revolts at the very conception of such a proposition. Therefore, there cannot be nothing any-or-every-where in space. Wherefore, the Infinite Space is neither a nothing nor a vacuum ; but an Infinite Plenum ; and this Infinite Plenum is the Infinite Intelligent Principle.

60. It having been shewn that Infinite Space is an Infinite Intelligent Principle, it may be asked, what *is* this Principle? Is it the phenomena of Cosmos? No. Because, the Cosmic phenomena are merely the products of the dynamic energies of Nature. Is it, then, these dynamic energies? No. Because they are merely the vibratory motions of the medium that pervades space. Here is the most critical point in the spiritual philosophy : The fraternity of Scientific religionists march hand in hand as far as the Cosmic Forces, in quest of the Ultimate Cause of the Universe, but here they break company and divide into two branches—one drifting in the direction of an hypothetical Personal Deity, and the other, in the direction of a Universal Impersonal Principle or Being.

61. The Doctrine of Anthropomorphism is, I must own, to my mind alike untenable and unphilosophical. For, if a Personal God exists, creating and governing the Physical Universe, he must, of necessity, be omnipresent. This Omnipresent Deity having a person or body, be it ethereal or any

other, his body must, of necessity, be ubiquitous too, that is, present in all Space ; in fine it must be an Infinity. We know a body consists of the head, the trunk, and the limbs. Accordingly, the body of God must have also the same members. Now, are the members of His body, each of them, finite or infinite in extension? If each of them be finite, can any number of finite things make an Infinity? No, Never. Again, if each of them be infinite in extension, His head, or trunk, or any of the limbs alone would occupy infinite space. Where will then be room in Space for the other members? Is there any trans-Infinite Space? Nonsense! The Theist's God cannot, therefore, be ubiquitous, whether we regard each of the members of His body as finite or infinite in extension. The Theist will now reply it is not His body, but His mind, whose presence is everywhere in space. But there is then this difficulty to surmount: How can a Mind, whose phenomenal expression is through the medium of the head of a *finite* body, pervade and comprehend infinity?

62. Again, the Anthropomorphic God is, and can be, neither Time, nor Space, nor Force, nor Matter. For He, as a person, has personal attributes, whereas these latter are, each of them, impersonal in their manners of existence and in qualities. Now, if Time, Space, Force, and Matter are not, each of them, God, then they must have either been created by God, or have existed from all time. Creation is an event of time, implying, as it does, the pre-existence of a Creator. Let us suppose they were creations of time. They must, then, have come into being at some epoch or other before which they had had no existence. Was there, then, a time when there was no space (in—where?)? Was there, then, a period (of—what?) when there was no time? Surely, we cannot conceive a period when Time and Space were not. And, as respects the others, namely Force and Matter, it may be asked were they created out of something or nothing? If out of something, then *that something* must have existed from all

eternity, unless indeed the same explanation of its existence be given ; and thus, though we extend the creation out of creation backwards in an infinite series, we still arrive at the *something*, the ultimate root of Force and Matter as existing from all eternity. But if it be said that Force and Matter were created out of *nothing*, how could *something* have been ushered into being out of *nothing* ? Space, Time, Matter and Force must, therefore, have existed throughout the past eternity. Whatsoever exists from eternity are Infinities and Eternals. Therefore, Space and Co are Eternals and Infinities. The Personal God of the Theists is also Eternal and Infinite. There are thus five Co-Eternals and Co-Infinities, to wit, Time, Space, Force, Matter and God ! These Infinities, existing from Eternity, do not, each of them, owe their existences and specific characteristics to the agency or medium of either of the others. Space, Time, Force, and Matter are not, therefore, dependent upon the Personal Deity either for their being, or for their individual functions, or the products of their functions. These three things, namely, Space, Force, and Matter, given, and we have our objective Universe. For what else is our objective Nature than Space and the products of the actions and re-actions of Matter and Force existing and moving in Space ? We have, therefore, no reason nor necessity whatever to step outside of Nature or beyond the Realm of Space and Matter and Force in quest of a *supernatural* Deity to account for the existence of Nature, and the proceedings of her laws and forces.

63. The Theist will naturally urge that there is design in Cosmos, and that design implies a Designer, and that Designer must possess personality. In reply it may be said you speak of an Artificer in Nature. Pray, what design is there in the existence of rudimentary organs in vegetable and animal organisms that are useless to their owners and are undergoing the processes of elimination ; in a large planet that requires much

light having fewer (and sometimes no) moons than a small one ; in a plant growing on a rock but withering before it attains maturity for want of sufficient soil, and in other similar innumerable instances? But even granting that Design is evident in Nature (and no one can deny this despite its apparent lapses and failures in so many cases) still this design can be explained without a Personal God, such as the ordinary Theist conceives. Out of the impersonal "One and Only," the Infinite and the Absolute that we think of as Space, Time, Force and Matter, develop conscious intelligences, finite and conditioned it is true, compelled to work with the forces at their command (and hence the apparent failures in design above referred to), but still able to supply all that skill and design which is apparent in the Universe, as well as the supposed Personal God. Nay, in one sense, they explain the Universe far better than any Omnipotent Personal Deity could. For if we accept the latter we must hold him answerable for all the evil and misery that is in the world, all the sickness, suffering, and sin, as if Omnipotent he could have prevented all this, and indeed if Beneficent, as well as Omnipotent, would and must have prevented it. Whereas if the designers, however elevated and glorious, are merely conditioned intelligences, having to make the best they can of the circumstances which condition them, the origin of evil ceases to be a stumbling block, and while we cannot believe an Omnipotent intelligence who permits all the evil and misery which we see in the world to be really good, and cannot, therefore, though we might fear him, love him as a Father, we can believe in the entire goodness of conditioned intelligences, we can understand that, despite all that is wrong here, they may have done their very best for all, and we can love them as *divine* though not *Omnipotent* fathers or guardians. Therefore, evidences of design in Cosmos cannot *prove* the existence of an Infinite and Omnipotent Anthropomorphic God.

64. Analogy and experience both teach us that

the intelligence, which is in association with, or to express the same in the occult language, is conditioned and affected by a body, be it Material or Ethereal, is a finite though conscious intelligence only ; and the knowledge and power of this finite intelligence are relative and limited. The correlatives of these propositions, *viz.*, that intelligence unassociated with, or dissociated from, body or matter, may be Infinite but must be unconscious, and that the knowledge and power possessed by Infinite Intelligence are absolute and unlimited, are true too. We see thus that the ordinary Theist is on the horns of a dilemma. Either he must endow his God with personality, and thereby restrict His knowledge and power to relativity and finity, or he must rid his God of His anthropomorphic attributes, and thereby sublimate Him into absoluteness and infinity. Both are equally detrimental to the Doctrine of the ordinary Theist.

65. Now, Gentlemen, the foregoing arguments indisputably prove that there neither does, nor can, exist any such Being as an Infinite, Omnipotent, Omniscient Personal God, acting upon the Universe from any suppositious ultra-universe region. Even some of the more advanced scientists have fallen back on the alternative doctrine. Thus Professor Hæckel says : " They (the ordinary Theists) overlook the fact that this personal Creator is only an idealized organism endowed with human attributes. This low dualistic conception of God corresponds with a low stage of animal development of the human organism.

"The more developed man of the present day is capable of, and justified in, conceiving that infinitely nobler and sublimer idea of God, which alone is compatible with the monistic conception of the universe, and which recognizes God's spirit and power in all phenomena without exception. This monistic idea of God, which belongs to the future, has already been expressed by Giordano Bruno in the following words : " A spirit exists in all things, and no body is so small but contains a part of the divine substance

within itself by which it is animated.....By it we arrive at the sublime idea of the unity of God and Nature.”*

The other alternative doctrine, which is really Pantheism (though this term has been variously applied) asserts that the nearest representative of the Theists supposed God is the Infinite Impersonal Excito-Motive Principle of Cosmos. I said before that some Imponderable Essence is imminent in the infinity of Space. This Essence, being the originator and propagator of the diverse undulatory movements or dynamic energies of Nature, is the Source and Seat of all Cosmic Laws, Forces and Phenomena. Waves are produced in this Absolute Substance in virtue of its innate impulsive tendency. Hence Motion is the necessary attribute and condition of its existence. And this Infinite Substance is the Potentiality of all Cosmic motion, that is, is the Latent Force of the Universe. It was remarked above, while discussing the Corpuscular Efflux and Conflux Theories, that this Cosmic Force is an Absolute Intelligence. Therefore, the Infinite Substance is the Intelligent Potentio-Motive Force of the Universe.

66. Is not this Supreme substance or Essence often spoken of as an incognizant, unconscious, unintelligent Principle? Yes; this Essence, this Impersonal God (?) is both cognizant and incognizant; conscious and unconscious; intelligent and unintelligent—cognizant, conscious, and intelligent in the absolute sense; and incognizant, unconscious and unintelligent in the relative sense. Let me explain: Cognizance implies the relation of duality, *that is*, the existence of two things—one to cognize, and the other *to be* cognized. When, therefore, there are less than two things, relative cognizance, such as is experienced by us, cannot exist. To apply this to the case of the Infinite Essence or Being: for this to be cognizant, it is necessary that there should

* “History of Creation,” Vol. I, pp. 70-1.

be two things, that is, Itself and something other than Itself. This something other than Itself must exist either within or without it; but there cannot be anything without It; for It is Infinite Space and Infinite Time, and there cannot be anything outside of Infinite Space or before or after Infinite Time. Neither can there be anything other than Itself within It; for It is All in All; and everything within It is Itself. We see thus that there is, and can be, nothing outside of the Infinite being; neither is there, nor can there be, anything inside It, which is not Itself. There is, therefore, no second to "the Universal," "the One and Only," and consequently no relation nor relative cognizance to It. The perfect qualities of the Universal Being must be expressed in the following language: The "One and Only" is not conscious, but is (the) consciousness (of All Things); is not cognizant, but is (the) cognizance (of All Things); is not intelligent, but is (the) Intelligence (of All Things). In these statements the adverb "not," is not to be construed as negating the significations conveyed by the juxtaposed adjectives, but only as negating the relativity of existence, of perception, conception and knowledge. When then we say that the First Cause is unconscious, &c., &c., we do not thereby mean that it is devoid of consciousness, &c., &c., but that It is absolutely conscious, and so on. It can only provoke a smile, therefore, when we hear a bigoted worshipper of his own image projected on the sky (for that is what his anthropomorphic deity is) whose head is too narrow and shallow, too full of the concrete and the worldly to grasp the bold and broad, abstract and ideal philosophy of the Universal Religion, assert that this latter is but a species of idolatry, and that our (relatively) Unconscious First Cause, and Supreme Being is but a *stone* God—an imaginary statue shrouded in the recesses of Infinity! Very little of the statue in what *is* the sum of all the forces of the universe, past, present and to be—very little shrouding, in what not only pervades, but *is*, everything that exists!

67. The Infinite Being, which is the Potentio-Kinetic Force of Cosmos, is the Primordial Essence of All Things. Does this Essence fill all the infinity of Space continuously, that is, without any breaks of continuity in its expansion in the shape of interstices, or no? First, let us suppose that it does so: Then the Whole Substance is One Partless Indivisible Unit or Monad. If not, it must be made up of more than one unit, *i.e.*, composed of units or particles, which must have, of course, interspaces between them. There will, then, be breaks of continuity in the extension of the Essence in the form of interstices. But our previous conclusions tend to show that there are no such breaks in it, for it *is* itself infinite space, and does not merely occupy portions of this.

But, let us suppose that the Infinite substance had breaks in its extension. These breaks would be the intervening spaces that divide the substance into parts or particles. These intervenient spaces must be either vacua, that is intervals unoccupied by anything, or they must be occupied with something. If occupied, the occupying substances cannot be grosser, but must be subtler than the Primordial Essence. For, if grosser, it may well be asked how could the particles of a grosser substance fill the interstices between the particles of a finer substance? That is simply impossible. But if it be said that the intervals are occupied by a rarer substance, it cannot improve the position. For, the query that we have propounded in regard to the Primordial Substance can be repeated in regard to the supposed subtler interval-filling substance. Is this substance, which is finer than the Ultimate Essence, a breakless extension, or composed of particles? If a breakless extension, why not at once accept the Ultimate Essence itself as breachless? But if composed of particles, what occupies *their* intervals? So the chain of this question can be drawn out at infinite length, without ever reaching finality.

Therefore, the intervals, if there be such, between the constituents of the Primordial Substance, may at

once be regarded as vacua, saving thereby endless and unnecessary circumlocution. Now, we have the particles of the Primordial Substance remaining separated at some distances from each other by voids or vacua.

They must attract and repel each other, and combine in all possible compositions to produce ponderable Matter. But how could the mechanical forces be exercised by and between them? The Corpuscular Efflux and Conflux Theories cannot apply here. For, according to the former theory, small corpuscles must emanate from the particles of the Primordial substance; but no corpuscles could emanate from those particles, since their bodies could not contain any corpuscles on account of their being the units of the Ultimate Essence. And, according to the latter theory, small corpuscles must flow from all sides upon them; but here we have first to account for the motions of the corpuscles themselves before we go to explain, with their help, the motion of the particles of the Primordial Essence. This same question can also be asked respecting the Efflux Corpuscles. Therefore, these two Theories are of no avail at all here; neither can the undulatory hypothesis be of any service now, because this hypothesis pre-supposes a rarer medium for the particles to float in. But these particles, according to our hypothesis, remain in vacua, in which no undulations are possible. Therefore, the Undulatory Theory also fails here. How then to explain the motions of the units of the Primal Substance? There is only one alternative more; and that is the Inherent-Power Theory. In accordance with this Theory, the particles move in virtue of their inborn force. These particles, being, according to hypothesis, the parts of the Universal Intelligent Force, are also Intelligent Forces.

Hence the particles that are, so to say, floating in vacua (and since all are separated by *vacua*, it comes to this) are so many Intelligences or Minds. These occupying each of them infinitesimal volumes of space, and their spheres of action being circumscribed by and between the juxtaposed particles

are Finite Intelligences or Minds. Are these particles the parts or constituents of the Primordial Substance or Absolute Mind any longer? No; they can no longer be so; for we call only those things the components of a whole that are immediately or mediately connected with one another, and that, in virtue of their common connection, make the whole. But in the case under question we see countless particles, or rather bodies, in space with intervenient vacua. These vacua or voids being empty spaces or non-existences cannot exert any impression upon the particles, nor can they tie or unite them together into a system or whole. Therefore, the space diffused particles are not parts of a whole, but independent existences; and these independent existences are Independent Finite Minds. Independent Finite Minds have independent or different wills, emotions, desires, tastes, and aims. Countless different or Independent Minds will not, and cannot, at all work together to produce and sustain Cosmic Harmony and Stability. If a harmonious and stable Cosmos were committed (Heaven forbid!) to the tender mercies of so many Finite Intelligences for only one second, they would be sure to throw everything into hopeless confusion, and replace Cosmic Harmony by Chaotic Anarchy. But, on the contrary, when we seriously reflect upon the Cosmos, we are irresistibly impressed with the stupendous majesty of the order and harmony that pervades it; and the conviction is forced upon our minds that its inexorable laws, unremitting forces, stable equilibrium, &c., &c., must be the products of a single Changeless, Untiring, Absolute Intelligence, and not of Numberless Capricious Finite Minds. And yet the hypothesis, that the Infinite Primitive Substance is not of breakless continuity, but is constituted of parts or particles, leads us to this most unphilosophical and irrational conclusion. Therefore, we conclude that the Primordial Substance is a continuous Whole—an Infinite, Partless, and Indivisible One.

68. As an Infinite One, it is an Incompressible,

Frictionless, Homogeneous Essence—in brief, it is a perfect Eternal Substance. This Perfect Substance is the Intelligent Potentio-Kinetic Energy of Nature. It has an infinity of attributes, each of which is of consummate perfection in its own way. And, being itself the Cosmic Motor, it agitates its own self; which action, stirring into play all its attributes, produces in its Substance a multiplicity of modes of rhythmical motion. These modes of motion are the various energies that constitute the harmony, and preserve the integrity, of Cosmos. Only a few of these energies of Nature are sensible from the plane of human perception, from the grandest and most durable down to a few of the successively smaller and more easily transmutable forms of motion—from Matter to Electricity. There are countless other forms of motion, that is, forces, which are too subtle for our dull, matter-blinded perceptive powers; but these will, one after another, become cognizable to us as we progress in the evolution of our souls; and it is for this reason that an adept knows more, incomparably more, of the forces of Nature, occult or otherwise, than a Häckel, a Tyndall, or a Huxley.

69. Now to the Theory of the Evolution of Matter from the Infinite Primordial Substance. This Primordial Existence being itself the Potentio-Kinetic Energy of Nature, transforms its potentiality of motion into actuality of motion by its excitomotive capacity. Hence all manner of waves are incessantly generated and propagated by and in the Substance of the Infinite. It must be realized at the outset that these waves of force are subject to conditions altogether unlike those which modify waves generated and moving upon the surface of water, inasmuch as these latter are affected by other waves upon only one plane, namely, the plane of the surface of water; while the former, not flowing upon the surface of the Infinite Substance (for surface implies limit on one or more than one side, but the

Infinite Substance has no limit), but in and through its Substance, are subject to innumerable modifying impacts from all directions, and are turned and twisted here and there, now intensified, now enfeebled, now neutralized, now regenerated, by other vibrations upon all planes and from all sides. Amidst this tumultuous and wild scene of incessant flows, impingements, intersections, upheavals and subsidences of waves, it is quite natural and possible that some waves should be synchronously impinged upon and augmented in bulk and power by the waves upon several planes on one side of them. And these waves, consequent upon the increased size and strength taken on from the impact of those other waves, bend upon themselves on that side where they are less subject for the time being to undulatory impacts, and begin to revolve and rotate. Hence there will be vortices formed wherever larger waves develop and bend upon themselves. It is these rotations or eddies or vortices of the Infinite Substance which are the beginnings or units of Matter. These units of Matter are the particles of Ether.

We see thus that the ultimate units of Matter are the primary manifestations of the Essence of the Absolute Existence,—in other words of the Infinite Potential Force.

70. The ether-particles, being emanations of the Absolute Intelligent Force, have a remnant of their Parent-Force inherent in them. Hence the mechanical forces of Matter, namely, Attraction and Repulsion. Besides these forces, there are also others, in the shape of the undulations of the Primal Substance, dashing and acting upon these particles. Some of these forces are known to Physical Science as the Chemical Forces, Magnetism, Electricity, Heat, &c., &c. As Motion is incessant in the Absolute Essence, these mechanical and physical forces are incessantly active also. Impelled by their native powers, and propelled by the foreign forces, the units of Matter start upon the grand procession of the Evolution of Cosmos.

71. We see thus that Matter is evolved from, and in, and by this perfect Substance or Force of which it is one mode. Is this genealogy of Matter from, let us say, the Substance of Force (for it comes to that) true and reliable? Does Modern Science countenance this Doctrine of the Evolution of Matter? Yes. You have heard of Professor Helmholtz and Sir William Thomson, two well known leaders of Modern Experimental Science? Pray, what is their Vortex-Ring Theory of Atoms but the above Doctrine of the Descent of Matter from Force? I can also cite Descartes, Hobbes, Malebranche, Leibnitz, and Spinoza as upholding virtually this same Doctrine. Sir William Thomson says: "A fluid fills all space, and what we call matter are portions of this fluid which are animated with vortex motion. This perfect medium, and these vortex rings which move through it, represent the universe. There are innumerable legions of very small particles, or portions, but each of these portions is perfectly limited, distinct from the entire mass and distinct from all others, not only in its substance, but in its mass and its motion—qualities which it will preserve for ever. These portions are Atoms."*

72. The ordinary theist will of course deny this Theory of the Evolution of Matter from the Perfect Substance, or, if partially accepting it, will still hold the genesis of Matter to have been in some way the result of a miracle, or, in other words, of a special creation. And the so-called scientist will dispute the truth of this Doctrine, on the ground that rotations could not be produced by and in a frictionless perfect substance. Need I say that both, in my opinion, err. For what grounds, beyond what they may have read or heard from others, have they for *assuming* that space is filled with *dead* particles, with *blank* interstices; and that these dead particles have to cross these intervals, and collide, and join with each other before they can rotate? I told you

* The Atomic Theory, by M. Wurtz, pp. 328-9. Of course in this last point he is in error.

before that the Infinite Space is One Infinite Monad ; and this Monad is the Absolute Intelligent Potentiality of Motion. Take any point in space you please, and you will find it full of Life, and Mind, and Motion. While every point of space is Intelligent Motion, the divine interposition of the theist, and the internal friction of the scientist are unnecessary for the origination of rotatory motions in the Absolute Perfect Essence.

73. Now that the Doctrine of the Descent of Matter has been discussed, the Doctrine of the Non-Eternity of Matter can be more satisfactorily dealt with. From the above considerations we understand that Matter is a form of wave in the same manner that forces are forms of waves. The only distinction between them is that the waves of Matter, which are the largest and most complex of waves, and which cannot, therefore, be easily and quickly affected by their collisions with other waves, have attained the consistency of a distinct permanent type, whereas those of forces, which are too small and simple to organize into, and maintain distinct individualities against incessant attacks of other waves, are easily affected and translated into one another. However, these waves of force which we know as Matter (though not as readily affected by external circumstances as those other waves which we recognize as forces), will, under the constant action of those other less stable waves, gradually, but insensibly, diminish in bulk and power, until after cycles of ages they become as small as any of the ultra-material waves, and consequently, being no longer able to preserve their individual existences, they get lost among them. With this absorption of Matter into Force the Objective Universe will vanish. Thus the grand Cycle of Objectivity will be run ; but the waves of forces, amongst which those of Matter were disintegrated and lost, will still continue to dash upon each other, and some of them will, under favorable circumstances, coalesce and swell into complex, stable, and rotating waves. Here, in these waves, we again

have Vortex-Rings or Matter. There will thus be another Cosmos ; but this will also vanish after countless ages with the resolution of Matter into Force. Thus another Cycle of Objectivity will be run, and so on, and thus the Cosmic Cycles will continue wheeling round the axle of the Infinite Force or Being from everlasting to everlasting, now blazing in the splendour of manifestation, and now shrouded in the gloom of latency.

74. You will remember that I told you while discussing the Doctrine of the Non-Eternity of Matter, that after the day of the final catastrophe of the world, that is, after all the Stellar Systems have collided with one another, and finally passed away into nebulous dust, new systems would again be evolved out of this chaotic ruin in virtue of the still remaining energy of Matter ; and that these processes of decay and revival would continue until at last the whole Material Universe had become re-immersed in the Spiritual Universe. The decays and the revivals are the Inter-Cycles or Epicycles of Cosmos ; and the Final Total Absorption of the Visible Universe into the Invisible Universe is the Cycle of Cosmos. Brothers, pray, what are these Inter-Cycles or Epicycles of Cosmos but the Pralayas, and the Cycles of Cosmos but the Kalpas of our Cosmogony ?

75. I said above that the Infinite Space is Infinite Being, this being the Infinite Potential Energy of the Universe ; and that this Energy does, in virtue of its impulsive tendencies, produce Rhythmic Motion (*i.e.*, Kinetic Energy) which is the Creative Agency and Harmony of Cosmos ; and Motion, in one of its modes, is Matter. What are these Eternal Potential Energy and Kinetic Energy and Matter but the Trinity of Brahma, and Iswara, and Maya, or Brahman, Sakti and Prakriti, of our Cosmological Science ? Of the Philosophy of Maya I shall say a few words further on in connexion with the Doctrines of *Karma* and *Upadana*.

76. The Occidental Cosmogony tells us that in the beginning Space was filled with nebulous particles. These particles attracted and repelled each other in virtue of their elastic polar forces, evolved light and heat by their impacts and vibrations, and took the form of a fiery mist. This mist began to revolve upon its axis, radiated light and heat, condensed all along the equatorial zone, and threw off ring after ring (suns). These rings also throwing off smaller rings (planets) in their turn [and these again still smaller ones (satellites) in their turn] organized at last into innumerable solar systems. The molten members of these systems radiated heat and light for countless ages in the process of gradual cooling ; at last the sublimated exhaled vapours of oxygen and hydrogen, in some sufficiently cooled region of space, condensed into watery molecules, and ultimately rain fell upon some globe. This is the genesis of water in Cosmos. The mutual action and reaction of these showers of rain, and the heat of the planets when rain first made its appearance on any of them, accelerated the radiation of heat and light. When in each a sufficiently moderate temperature was reached there appeared in regular succession minerals, vegetables, and animals, at whose apex is man. After all the vital energies and functional powers of the stellar systems have become exhausted, they, together with all that in them is, will be ultimately resolved into the original *nebulæ* and diffused again in space. Now, let us place by the side of this Cosmic theory of the Modern West that of the ancient *Aryavarta*, and then compare and see which of these two is the more scientific and perfect. I quote the following from the most valuable and interesting work : "The Bible in India," by that illustrious Orientalist and Philosopher, M. Louis Jacolliat : "The germ of Matter, once fecundated by Brahma, the phenomena of transformation operate spontaneously and without direct participation of God in accordance with the eternal and immutable law which has created. Matter, in precipitating itself from the centre, from its generating focus, sub-divides and gravitates in

space ; all particles are compressed, light is generated, the smallest fragments (globes) dry the vapours, which exhale, produce atmospheric air and water. The fragments become habitable worlds. When the profound night, during which the germ of all things was regenerating itself in the bosom of Brahma, dispersed, an immense light pervaded infinite space, and the celestial Spirit appeared in all the strength and power ; at sight of him Chaos was changed into a fruitful womb about to bring forth the worlds, the resplendent stars, the waters, the plants, animals and man.....Then from the Supreme Soul he emitted the life, or *Manus* common to plants, animals and man ; then the *Ahancara*, that is, consciousness, the individual mind with all its faculties, to be the special appanage of man alone..... Gradually all the other particles become extinguished in their turn, but in proportion as they become habitable, heat and light diminish, until having wholly disappeared, Matter, deprived of its most active agents of life and reproduction, falls back into chaos, into the night of Brahma.....Matter is subject to the same laws of existence and decomposition as vegetables and animals ; after a certain period of life comes the period of dissolution ; everything decays, all returns to chaos. The harmony of worlds is at an end—air, earth, water, light coningle and become extinct. It is the *Pralaya* or destruction of all that exists ; but there is a germ which purifies by repose until the day when Brahma again comes to develop it, to give it life, the creative power, and to produce the worlds which commence little by little to form, to grow, and to operate, again to encounter a new decomposition, followed by the same repose, and by the same regeneration. Intrinsic laws of matter which fades by existence grows old and dies, but is restored by God.....When Brahma passed from inaction to action, he came not to create Nature which existed from all time in his essence, and its attributes in his immortal thought ; he came to develop it.....Spirit mysterious ! Force immense ! Power immeasurable !.....didst thou sleep like an

extinguished sun in the bosom of decomposing matter? Was that decomposition in thee, or didst thou ordain it? Wert thou Chaos? Wert thou life, comprehending in thee all the lives that had fled the strife of destroying elements? If thou wast life thou wast also destruction, for destruction comes from action, and action existed not without thee.....Hast thou cast the mouldering worlds into a fiery furnace to purify and reproduce them from decomposition?"*

"The same Upanishad (*Taittiriya*) speaks of the production of ether from that or this Spirit ('Brahma'), and from ether air, from air fire, from fire water, from water earth, from earth herbs....."†

Again: "Brahma is he, from whom all these elements are produced, and into which they are resolved. From this Spirit are produced all worlds, all animals, all gods (adepts), all creatures. This God of all, this omniscient, this in-goer, this origin or womb of all is the source and resolution of creatures."‡

And again: "That, from which these elements are produced, by which, being produced, they exist, and into which, at dissolution, they are resolved, is Brahma or God."§

These of course are only the exoteric teachings; the whole truth was never openly proclaimed in ancient days, but even these exoteric teachings will suffice for our present purposes. Now, when we examine and compare the European and Hindu Theories of Cosmic Evolution and Involution, we find that the former are narrow and incomplete; and the latter broad and comprehensive. I shall illustrate this statement by means of a diagram: Let a circle represent the Cycle of Cosmos; let any two of its consecutive quadrants, 1 and 2, represent the Evolution—I, from the Primordial Substance or Brahma up to Atoms, and 2 from the Atoms up to the perfect Adept, or whatever is higher than this; and let the other two, 3 and 4, indicate the Involution—3 from the

* "The Bible in India," pp. 183-93.

† "Hindu Philosophy," by Banerjea, p. 433.

‡ *Ibid*, p. 442.

§ *Ibid*, p. 433.

Adept down into the Atom, and 4 from the Atom back again into the Primordial Substance. The European Philosopher, whose Cosmic knowledge ranges from Atoms to Atoms, leaves out of account the quadrants 1 and 4. Hence his knowledge of Nature is only one-sided—a Half Truth. But the Hindu Philosopher, who recognizes that the Material Universe issued forth from the bosom of Parabrahman, and will ultimately become re-absorbed into it, comprehends the whole circumference of the circle. Hence his knowledge is a whole Truth.

77. How sublime, how true, how perfect the Cosmic philosophy that recognizes that the Eternal Potential Force or Being is the Alpha and Omega of Cosmos! This Intelligent origin of all things is Infinite Space, and Infinite Time. The whole Space is, therefore, everlastingly Force, and Life, and Mind. And the visible Universe, born from the uncreated womb of the Infinite Intelligence, is a Living Existence. There is, or can be, therefore, naught in all nature which is inanimate or dead; and the supposed distinction between animate and inanimate nature is unreal, and is due solely to human ignorance, the consequence of the limitation of man's physical and his neglect of his psychical powers.

78. There is force, there is life, there is intelligence here, there and everywhere in nature. If all Matter be alive and conscious, how is it that all things are not equally animate, nay, that some appear inanimate? The reply is all the particles of Matter are individually alive and conscious, but life and consciousness vary infinitely in stage of development, and outside our own class, life and mind are unintelligible to us, hedged in as we are on our plane of conditioned sense-perception.

79. The aggregates of ethereal particles, which are of such specific relative positions and inter-distances that their individual lives are unitized and harmonized by the rhythmic motions of the absolute

essence (*i.e.*, the totality of the Cosmic Forces) in which they float, into the concrete and by us cognizable phenomena of life, mind, &c., are those only which we recognize as animate. Such evolutes endure for cycles of ages on account of their stable and harmonious constitutions. The souls of animals and man come under this head. On the other hand, compositions of grosser particles, molecules for instance, whose individual lives are not, on account of their grossness, so sympathized and equilibrated as to be collectively sensible to our cognizance, are what are conventionally called inanimate things. Such bodies are liable to be dissolved when under the influences of the Chemical and Physical Forces. The mineral substances and the physical bodies of animals and man belong to this class.

80. But still while differing thus, in what we may call quality, degree, or character of animation, all matter *is* animate whether or no we can cognize its animation. Let us hear what Häckel, Tyndall, Spencer, and Goëthe say respecting this. Professor Häckel says: "This unity of all Nature, the animating of all Matter, the inseparability of mental power and corporeal substance, Goëthe has asserted in these words: 'Matter can never exist and be active without mind, nor can mind without Matter.....' We thus arrive at the extremely important conviction that *all natural bodies* which are known to us *are equally animated*, that the distinction which has been made between animate and inanimate things does *not* exist."*

Professor Tyndall says: "No man can say that the feelings of the animal are not represented by a drowsier consciousness in the vegetable world.....The animal world is, so to say, a distillation through the vegetable world from inorganic nature. From this point of view all three worlds would constitute a unity, in which I picture life as imminent everywhere."†

* "The History of Creation." Vol. I, pp. 22-3.

† "Fragments of Science," Vol. II, pp. 246-7.

We see thus that the whole universe and all the things therein are animate and conscious.

81. The Physical Universe is, as I said before, the outcome of the Infinite Being. It does, before its evolution from, and after its involution into, the Infinite Spirit, remain a latency in its Absolute Idea. Now, what is this Absolute Idea? Is it an accident or secretion of the phosphorescent Matter of the brain of the Infinite; or, is it a phenomenal expression of the mind of God? It is neither an accident nor a secretion of the matter of the brain of God, for he has no brain, being impersonal. Neither is it the phenomenal expression of his mind, for he has no mind, being himself Mind (of all things). What else is it then? It is the Excito-Motive Tendency innate in the Substance of the Absolute Intelligence for the harmonious action, reaction and interaction, that is, for the initiation and consummation of the rhythm of motion, and the resultant phenomena of life, mind, &c., of the things that compose the Cosmos. This Tendency of the Universal mind is the Archetypal Principle and the Formative Power of the Objective Universe. If we could dissolve the Material Universe into the original nebulous particles, and diffuse them throughout space, it is certain that they would again attract each other precisely in the same manner that they did during the Chaotic Period; that they would aggregate and divide into precisely the same number of stellar systems as now exist; that each system would have precisely the same number of planets and satellites as now; that each sun, each planet, each satellite would have precisely the same magnitudes, and precisely the same kind and number of minerals, vegetables, &c., that they now have. In brief, another Physical Universe would be evolved exactly similar to the present one, corresponding in every detail, even to the number of the grains of sand, of the leaves of the trees, to the specific complexions, the moral tendencies and intellectual capacities of every individual, &c., &c. Decompose the Material

Universe into nebulous dust as many times you please, the Cosmic evolutions will repeat themselves with absolute fidelity after each decomposition.* The Infinite Intelligence, whose innate activity constitutes the Universal Law of necessity, under the stern regime of which the Cosmos is evolved, is the Absolute Idea. This Absolute Idea, whose sensible expression is the Physical Universe, is therefore, the Potential Prototype of our Universe. Professor Tyndall comes near this truth when he says: "Not alone the more ignoble forms of animalcular or animal life, not alone the nobler forms of the horse and lion, not alone the exquisite and wonderful mechanism of the human body, but that the human mind itself—emotion, intellect, will, and all their phenomena—were once latent in a fiery cloudAll our philosophy, all our poetry, all our science, and all our art—Plato, Shakespeare, Newton, and Raphael—are potential in the fires of the sun.†"

82. The Objective Universe being begotten of the Infinite Being or substance, all natural objects are the offspring of that substance. Therefore the fluids, liquids, minerals, vegetables, animals, and man are all members of one Universal Family, and are Brothers and Sisters. This is the broad basis of the Universal Brotherhood. Ah ! What a comprehensive and sublime truth is this Doctrine of the Fraternity of all Existences ! We ought, therefore, one and all of us, to recognize intellectually and in practice live up to the truth of this Universal Monistic Parentage. Universal Sympathy, Universal Love, Universal Charity, Universal Equality, Universal Reciprocity, Universal Tolerance, and Universal Well-Being are not mere phrases, or Utopian dreams ; they are a simple expression of the Laws of Universe, that all, who would have things go well with them, must needs respect. For be it well understood the Laws of the Universe are irresistible,—

* This seems fanciful ; such details are not embodied in the Great Law.—S.R.

† "Fragments of Science," Vol. II, p. 132.

live in accordance therewith, float with the Cosmic tide, and it will bear you happily to your journey's end ; transgress these Laws, try to run counter to the stream, and shipwreck and death await you. The genius of Shelley, the Great Metaphysical Poet, instinctively seized this fundament truth of the Universal Brotherhood : witness these noble lines !

“ Earth, ocean, air, beloved brotherhood !
 If our Great Mother has imbued my soul
 With aught of natural piety to feel
 Your love, and recompense the boon with mine ;
 If dewy morn, and odorous noon, and even,
 With sunset and its gorgeous ministers,
 And solemn midnight's tingling silentness ;
 If autumn's hollow sighs in the sere wood
 And winter robing with pure snow and crowns
 Of starry ice the grey grass and bare boughs ;
 If spring's voluptuous pantings when she breathes
 Her first sweet kisses, have been dear to me ;
 If no bright bird, insect or gentle beast
 I consciously have injured but still loved
 And cherished these my kindred ;—then forgive
 This boast, beloved brethren, and withdraw
 No portion of your wonted favor now.”

83. Man is not created of any ultramundane materials by an Ultra-Cosmic God, but is evolved out of the cosmic substance by the immutable and intelligent laws and forces which pervade and are part of the Infinite and Absolute. Hence it is that whatever factors constitute the universe, also constitute man. There are matter, motion, formative principle and soul in Cosmos, and these very same factors are also in man. Man is thus the child of Cosmos. The child of Cosmos is a Minor or Little Cosmos, just in the same manner that the child of man is a Minor or Little Man. Minor or Little Cosmos is Microcosmos or Microcosm. And it is because of this kinship between the Macrocosm and Microcosm that there exists, where hearts and lives are pure, so much parento-filial sympathy and reciprocity

between Nature and Man. In the broadest sense of the term, a molecule, or any other natural object, is as much a microcosm itself as man. Because, it is as much a product of Cosmic laws and forces as man, the only difference between them being that it is a rudimentary microcosm, and man a developed one.

84. From the above it is plain that everything in Nature has, like Nature, a *noumenon*, that is, Soul, that persists and continues; and an outer *co-phénoménon*, that is, Body, that changes and dissolves away.* You will remember that I told you when I spoke about animate and inanimate bodies that the soul, being constituted of ethereal particles, which, on account of their excessive minuteness, strong affinities, close proximity, and the resultant coherence and strength, have confederated into a league against all dismembering influences, is endurable for cycles of ages. But the physical body is just the reverse as regards the nature of its constituents and constitution, and is consequently liable to be easily disorganized by chemical or mechanical forces. It is on account of these differences, elementary and constitutional, that the Soul is a continuous, progressive existence, carrying with it its past experiences and its latent capabilities to be developed into more and more perfection as it ascends the scale of progression; and the Body is but a short-lived entity, dissolving into its component elements after its severance from the Soul. I wish it here to be understood that my opinion of the difference between the Body and the Soul is not such as is held by dualists, who say they are essentially and eternally distinct. You know my definitions of Matter, Body and Soul; as thus defined Body must be convertible into Soul, if only we could decompose its constituents into such subtle particles as those of Ether, and re-arrange and compose them after the fashion of the structure of the Soul, and *vice versâ*. To the question, how is it

* Where is Spirit or *Atma*? If soul is spirit, where is the Astral Principle?—S.R.

known that Body is a loose collection of discrete lines, and that there is within it such a separate entity as Soul, which is the collective life of its components, I reply, that the fact is such, is amply and irrefutably demonstrated by the phenomena of Mediumism, Clairvoyance, and above all Occultism. I shall revert to this question when I discuss the Doctrine of the Progression of Souls.

85. The finite soul begins its march of development in the purest and most elementary form. After passing through certain subjective kingdoms, of which nothing can be said here, it comes in contact with the gross matter of the surrounding world by the processes of attraction, absorption, and assimilation in the lower grades of development in the Mineral Kingdom; and by attraction, absorption, nutrition and assimilation in its higher phases of development, as in the Vegetable and Animal Kingdoms. The particles of this gross matter do, owing to the actions and reactions between themselves, and the particles of the soul, interblend with those of the latter, and settle and organize themselves into the physical body of the soul. The soul and body are disturbed in their mutual relations, and unbalanced in their relative equilibrium, when either of them imposes too much strain upon the other, as in the cases of extreme fear, anger, joy, &c., or extreme physical labour; or, when any internal or external causes or accidents, such as severe diseases, or injuries, &c., work upon them so violently that they are forced to repel each other;—and separation is the result. When body is thus divorced from soul the latter does not continue to remain bodiless, but is in obedience to the ever-vigilant law of Affinity, attracted to some reproducing individual pair or couple according to the stage that it has reached with whom it is in sympathy; taken up in the female reproductive system it gathers gross matter from without through the processes of nutrition and absorption, which, as it accumulates, is organized into a new physical body, by the Cosmic formative principle.

In its ascension on the ladder of evolution, the soul is, upon every rung, alternately putting on and throwing off body after body without number. But it is not left unaffected by its almost incessant contacts with gross matter; because each time it is interblended and clothed with a body, a small quantity of the more ethereal matter, which the gross matter of the corporeal body carries with it in its gravitations to, and contacts with the soul, is on account of its comparative rarity retained in permanent cohesion by the soul partly assimilated in, and partly held loosely around it. This attenuated ethereal coating is what is called the psychic body. Once the soul becomes thus affected or "corrupted" by matter, it is no longer that simple, pure entity it once was, but becomes forthwith a materio-spiritual existence; and its further evolution is a co-ordination of physicality and psychicality. This Doctrine of the Psycho-Physical Evolution is recognized by Tyndall, who says: "Besides the physical power dealt with by Mr. Darwin, there is a psychical life presenting similar gradations and asking equally for solution. How are the different grades and orders of mind to be accounted for? What is the principle of growth of that mysterious power which on our planet culminates in reason?*"

86. The phenomenon of dual evolution simultaneously progresses and finally culminates in man. So far progress is inevitable. After reaching this stage, that is, the man-stage of progression, either the psychical development stagnates or retrogrades, according to the modes of life led by worldly-minded or wicked people; or the physical frame, owing to the disuse of bodily functions, and the abstention from material desires, becomes more and more attenuated, till at length the process of elimination is complete; its dissolution or death has been *gradually* and almost insensibly achieved, and the soul, as in

* "Fragments of Science," Vol. II, p. 184.

the case of perfect adepts or yogis, is for the time left unfettered in its upward march.

87. In all these phases of evolution we see that the soul is the only real permanent factor of existence ; and the numberless series of bodies, which it has donned and doffed during its past career of development, are but its consecutive and varied moulds for greater and greater perfection. And it is these grades or phases of evolution which constitute the Progression, or, as some call it, the Transmigrations of the Soul. Is the Doctrine of the Progression (more commonly though wrongly called the Transmigration) of Souls true and scientific? Why not? If these three things, namely, (1), the existence in man of some sentient entity other than the body ; (2), the necessity of the previous existence of that entity ; and (3), the necessity of the future existence of that entity—if these three things are proved, then we have the whole truth of the history of the Progression or Transmigrations of Souls. This is one of the most important and complex questions, and needs to be elaborately and exhaustively discussed. To do so would require a volume ; but unfortunately this is merely an address, and, worse, I have to discuss this question in a corner of it. I shall, therefore, deal with this problem at greater length in a future address.

88. To resume : First, that there is in man some sentient principle which is distinct from the body of the man—may be demonstrated (*a*), inferentially ; and (*b*), phenomenally.

89. Inferentially this may be established thus : If such an entity does not dwell in man, then his body must be the seat, and not the medium (as it really is) of his sensations, pleasurable as well as painful. Accordingly, when his body is subjected to severe surgical operations that must produce acute pain, the man must invariably feel those painful sensations. But this is not always the case. The mate-

rialist would here plead unconsciouness on the part of the subject induced by nervous derangement for the time being. But I tell him, by way of rejoinder, that if the man were unconscious and did not feel pain on account of nervous derangement, or paralysis, he must also be unconscious of, and insensible to, all sensations alike. Is this not true? Well, if so, why do some subjects smile pleasantly when undergoing the cruellest possible operations? And why, after restoration to a normal state, do they declare that they were in an inexpressibly felicitous state all the while those operations were being performed? Nay, why do they even go the length of abusing their doctors for having restored them to earthly consciousness and thereby put a stop to their enjoyment of that felicity? Do not these facts prove that whatever their *bodies* may have been, *they* were conscious, though conscious possibly on a different plane, throughout the operation. Dr. G. Wyld, M.D., of London, says in his work on "Theosophy and Higher Life:" "Many of those who have inhaled nitrous-oxide which produces asphyxia have expressed their enjoyment of like happiness, even as their teeth were being extracted. I have, during the last forty years, witnessed many mesmeric experiments, and it is well known from the evidence of Dr. Esdade of Calcutta and others that the severest surgical operations have been performed, not only without pain, but while the patient has at the time passed into ecstatic joys."*

This author, himself a physician, instances similar experiences of some other well known medical men in support of his opinions. Why could not the same operations be performed with the same results upon those patients in their normal life? And why did not all of them feel the same happiness? The answer is that in their normal condition their bodies and souls are so interblended with, and attached to, each other that all the experiences of the former are at once cognized and sympathised in by the latter.

* Quoted from the *Theosophist*, Vol. II, pp. 107-8.

But, on the contrary, in certain abnormal conditions the links that unite them are so far disunited that the soul does not feel what happens to its material frame. All patients do not feel this same happiness, for all are not so constituted as to permit that complete enfranchisement of the soul on which this depends.

Indeed, so far from remaining passive or exhibiting signs of enjoyment, some patients, operated on under the influence of anæsthetics, afford evidence of severe suffering; the face is drawn and distorted with pain, the limbs quiver, and even at times writhe; quite clearly the nerves have not been stupefied; faithful servants they are, endeavouring to warn the master of the house of the burglarious entry being effected in his premises, but the soul, the master, is away, or asleep; they have no one to whom to tell their sad tale, and when consciousness restored, the soul returns or awakes, it knows nothing of all that has occurred.

The conclusion to which these and similar experiences point seems to be that the thinking and reasoning principle—the soul if you will*—is not the Physical body, but something distinct and separable from this.

90. Again: Professor Draper, a well-known scientist, remarks: "If the optical apparatus be inert and without value, save under the influence of light; if the auditory apparatus yields no result save under the impressions of sound—since there is between these structures and the elementary structure of the cerebrum a perfect analogy, we are entitled to come to the same conclusion in this instance as in those, and asserting the absolute inertness of the cerebral structure in itself, to impute the phenomena it displays to an agent as perfectly external to the body and as independent of it as are light and sound; and that agent is the Soul."†

Did time permit, I could advance many other

* Rather the Astral Man? S.R.

† Human Physiology, Statical and Dynamical, p. 285.

arguments, physical and metaphysical, to prove the existence of the human soul. But I fear this address is already too long, and for the moment the above must suffice.

91. I next proceed to the phenomenal proof of the question. "Alfred Russell Wallace, President of the Anthropological Society of London, known to science as sharing with Darwin the apostleship of the modern doctrines of evolution; Maxmilian Perty, Professor of Natural History in the University of Berne; J. H. Fichte, the illustrious German philosopher; the late Professor Hare, one of America's foremost chemists; Nicholas Wagner and Dr. A. Butlerof, both well-known Physicists and Professors of the University of St. Petersburg; Dr. Frah Hoffman of Wurtzburg University; Camille Flammarion, one of the foremost astronomers of the day; Dr. J. R. Nicholas, Chemist and the Editor of the *Boston Journal of Chemistry*; N. W. Senior, a well known political economist; H. Goldschmidt, the discoverer of fourteen planets; W. Crookes, F.R.S., a well-known chemist, discoverer of the Metal Thallium, and Editor of the London *Quarterly Journal of Science*; C. F. Varley, F.R.S., Electrician; the late Professor De Morgan, eminent as a mathematician (and logician); Professor W. D. Gunning; Professor Denton, an experienced Geologist; Dr. J. R. Buchanan of Kentucky, eminent as an anthropologist and cerebral anatomist; Archbishop Whatley, the skilled logician; and Dr. Elliotson, the studious Physiologist and Editor of the *Zoist*,"* Professors Feckner and Zöllner, world-famed Physicists of the University of Leipzig; and hundreds of other Scientists and Philosophers of world-wide celebrity, have investigated the phenomena of Spiritualism under the strictest possible test conditions. They have tied the bodies of mediums by ropes or wires, so as to preclude the possibility of their moving; they have placed them

* Quoted from the Psycho-Physiological Sciences and their Assailants, by A. R. Wallace, &c, &c., pp. 204-5.

en rapport with specially-prepared electric apparatus by which the slightest movements might be easily and at once detected. When these investigators, thus armed with scientific precautions against all possible deception, fraud or hallucination, have been watching, they have seen spirit-forms sometimes forming in the neighbourhood of, sometimes oozing out of the bodies of the mediums, and moving about the rooms. Many of them have felt, shaken hands, and conversed with those spirit-forms. While such conversations have been going on with some of the observers, others of their colleagues have vigilantly watched the bodies of the mediums, which, on examination, proved to be more like corpses than living men. Brothers, what are these phenomena but results of the action of the immaterial portions, or souls, or spirits of human beings. It does not *here* for the moment signify what terms we use, nor does it signify much whether we regard the actors as the souls of the mediums or of some member of the circle, or of some deceased people. These spirit manifestations distinctly lead to the conclusion that there exists in man an incorporeal and intelligent entity which is distinct from and separable from his corporeal body.

92. Besides this, some scientists of recognized abilities and unquestionable veracity aver that, when under the influence of anæsthetics, they have found *themselves* (for the thinking entity is the true self in this life as a rule) projected out of, though still stationed near, their physical frames. Amongst others I quote from Dr. Wyld the following: "I myself, some six years ago, on one occasion, while inhaling chloroform, suddenly, to my surprise, found my ego, or soul, or reasoning faculty, clothed, and in the form of my body, standing out two yards outside my body, and contemplating that body as it lay motionless on the bed."* In anticipation of the obstinate sophistry of the

* Quoted from the *Theosophist*, Vol. II, p. 107.

sceptic who would say that the phenomenon of the temporary liberation and projection of the soul from the body is a simple dream, the doctor proceeds to observe: "Trance is a condition entirely beyond mere sleep, and visions of the spirit are entirely distinct from the dreams of imperfect sleep. No one in mere sleep can submit to painful operations, not only without flinching, but with the smile of joy on his face, and no one dreams that he is outside his body, he dreams he is with his body. Moreover, those who awake from dreams at once admit the dreams, but those who return from the revelations of entrancement, assert that these were not dreams.*"

Facts of this class also demonstrate the existence of a soul in man; but by far the most important point for us is the fact now known to all theosophists, that the Brothers, or adepts, the real founders and originators of our Society, can and do exercise at will the power of separating their incorporeal constituents from their corporeal frames—in other words *themselves* from their physical bodies, and of thus in spirit, or, as it is commonly said in their astral forms, passing to the most distant localities with the rapidity of thought. Thus the proposition of the existence of the human soul is demonstrated both inferentially and phenomenally.

93. I next proceed to discuss the question of the necessity of the previous existences of the human soul: Man is a product of evolution. Evolution implies a series of changes; for, unless a thing undergoes a series of changes, it cannot be evolved; and a series of changes implies a succession of causation and sequence. Therefore, every phase of the development of a living being is the inevitable result or effect as well of the conditions of life under which it has lived, as of its individual experiences, during its next antecedent stage of being. It logically follows from this that every creature that exists must have had a prior existence. Accordingly, the man must

* Quoted from the *Theosophist*, Vol. II, p. 180.

have had a previous existence. Now man is essentially a creature that lives, feels, thinks, reasons, &c. These are what make him a man, and if he does not live, feel, think, and reason he is no more man, but only a lump of clay, &c. I said before that there is in man a soul which is not his material frame. Man is thus (to neglect minor sub-divisions) a duality, composed of a body and a soul. I will not here enter upon the seven-fold division of man, for this address is already too long, and the dual conception will do for our present purpose. Now, which of the two great divisions of man's nature does really live, feel, think, reason, &c.—his body or his soul? His body may live and feel, though it is through his soul only that the sensations of his body become known, but it is his soul and not his body that thinks, reasons, &c., as is indubitably established by the facts of spiritualism, clairvoyance, somnambulism, psychometry and occultism. Therefore the soul of man is the true man (and not his physical body, which is merely the soul's casket or shell), and it is this which must have had a prior existence.

94. To the question, why the perceptive powers and reasoning faculties appear to depend, and continue in accordance with the nature of the structure and the state of the brain if the soul is the seat of these, I reply that the brain and nervous organization is the mechanism through which these faculties and powers are made manifest to other flesh-encased intelligences ;—if this mechanism is defective so will be the manifestations ; the soul is not dependent on these for its sentiency or the exercise of its intellectual powers as is demonstrated by the phenomena of mediumism, &c., &c. ; but no doubt under normal earth-life conditions, *i.e.*, so long as the soul is hemmed in and clogged by the material frame, the external manifestations of its powers, tastes, &c., *are* determined by the nature and states of the brain or nervous system.

95. Happily, it is now admitted by many

distinguished Western philosophers that morphologically, physiologically, morally and intellectually considered, man cannot be the evolute of so short a period as the nine months or so to which his foetal development extends. He has more experiences and knowledge than he can possibly acquire in a single lifetime. In exposing the inefficiency and insufficiency of the Doctrine of Pure Empiricism to account for all the varied experiences and knowledge possessed by man—Herbert Spencer, Tyndall, Hæckel and many others maintain that man cannot acquire all this in a single short lifetime, but must have inherited some portion of it from his ancestors.

96. This Doctrine of Empirico-Transcendentalism admits then that man really has more experiences than his individual ones, and that these unaccounted for experiences must have been gathered before he was born. Now, although with science it seems a foregone conclusion, we may usefully enquire *who* gathered these experiences—the man's ancestors or he himself prior to his entry upon his present life? We know that man acquires knowledge by his experiences, and his experiences are the imprints or effects left in his mind (accompanied during earth-life with some change in the brain or nerve-tissue) by external, or internal, or externo-internal influences. It is absolutely indispensable, therefore, that a man should himself be influenced by circumstances, and that a change in brain substance should communicate these to the recording principle or power of the soul before such circumstances can become an experience of his. It must apparently be equally true that he, who is not himself influenced by circumstances, can acquire no experiences; but it is affirmed, and rightly so, that man has a larger stock of experiences than could have been acquired by him in a single lifetime. How can these unaccounted for experiences be explained? If it be said that these are inherited from ancestors, we have a palpable contradiction in terms: How could experiences,

acquired by an ancestor, become the experiences of his progeny? How can the incorporeal acquisitions of one individuality, pass thus under normal conditions to a distinct individuality? What subtle sophistry can bridge the chasm that divides one soul from another?

Surely here are breaks of continuity in the evolution of Evolution. For, we have two things here directly opposed to the Law of Evolution :—First, a Cause without an Effect; and, secondly, an Effect without a Cause: It is an instance of a Cause without an Effect when an ancestor, who was in his lifetime influenced by environments, and in consequence of those influences acquired experiences and knowledge, ceases to exist without continuing his existence, as modified and evolved by those influences, and as strengthened and improved by those experiences and knowledge. Where, if this be true, is the boasted integrity of the Science of Evolution, which is after all only a Science of Causes and Effects, and of Antecedents and Consequents? How can *it* assert that an organism (of Soul), which is able to transmute its own experiences to another organism, is not itself able to continue to live bettered by those very experiences and knowledge? Surely this is a Doctrine of Annihilation and not that of Evolution and Amelioration. Again, it is an instance of an Effect without a Cause, when a progeny that did not live during the time of its ancestor's experiences, and that had not, therefore, any individual or personal experiences before its birth, comes into this world with a fund of experiences. The scientist laughs at the theologian who says that God created the universe from nothing, saying, and truly so, in the name of his science, that something cannot come out of nothing. And yet he virtually professes the very same Doctrine of "Something out of Nothing" when he pretends that a child that did not exist or live prior to its present birth, possesses ante-natal experiences and knowledge. Is it not quite unscientific to assert that an organism that has had no experiences of its own can yet possess experiences before the period of its experiences begins? Surely

this is the Dogma of Miraculous Creation, and not the Doctrine of Natural Evolution.

Moreover, according to materialistic and kindred doctrines, experiences and knowledge imply the affections or scars made in the Matter of the brain, or nervous system, by its molecular rotatory or spiral motions induced by transpiring circumstances. Whether or no we remember those past experiences, the imprints or scars left behind by them remain intact registered in the brain or nervous system. According to this, in order that an organism should have any experiences registered in its nervous system, it must first *have* a nervous system. But the organism was only the simplest, most homogeneous and unorganized matter, *i.e.*, a germ in its initial condition, and had no brain, no nervous system. How can this organism, then, have any experiences at its birth? The scientist may reply that the germ has no experiences whatever of its own ; but it simply inherits them from its ancestors, according to the Law of Inheritance. Now we know that under certain abnormal circumstances, one mature mind may so completely overshadow and interpenetrate another developed mind as to transfer to it all its experiences ; but is the proposition that ancestors habitually transfer their personal experiences to a simple, homogeneous germ conceivable? Is a process of inheritance of this kind thinkable and possible? Let us have before us an experienced organism and an inexperienced and undeveloped germ : Will any scientist explain to us *intelligibly* by what means, and through what channels, the experiences of the one are transferred to the other? Let us not be terrified and puzzled by the grandiose but empty terminology of scientific sophistry, but hold fast to analysis and reasoning. Spencer, Tyndall, Hæckel, Huxley, Darwin, Wallace and many other eminent evolutionists and staunch Apostles of the Doctrine of Heredity, all freely acknowledge that it is quite inconceivable and incomprehensible. Among others, I quote Herbert Spencer : "The capacity possessed by an unorganized germ of unfolding into a complex

adult, which repeats ancestral traits in the minutest details, and that even when it has been placed in conditions unlike those of its ancestors, is a capacity impossible for us to understand. That a microscopic portion of seemingly-structureless Matter should embody an influence of such kind that the resulting man will, in fifty years after, become gouty or insane, is a truth which would be incredible were it not daily illustrated. The manner in which hereditary likeness is conveyed is a mystery passing comprehension.”*

The first quotation made in this address from Häckel's "History of Creation" tells us that this philosopher shares Spencer's opinion on this point. My statement that the others too, Darwin, Huxley, &c., &c., admit the incomprehensibility of this Doctrine of Hereditary Transmission, can be readily verified by referring to their works on Evolution and Inheritance. Now, if the Principle of Inheritance is inconceivable and incomprehensible, and if it is, therefore, inexplicable and impossible, why still obstinately cling to the scientific superstition and myth of heredity? And why not reject it as unserviceable, and adopt, in its room, some other principle that can satisfactorily explain the phenomena of the so-called inheritance?

97. Here you will enquire by what other doctrine than that of Heredity the facts of apparent hereditary transmission can be explained. My reply is this: We know that there is an universal law, named the Law of Affinity, by which like attracts like. This law is a comprehensive one; and applies alike to physics and metaphysics; alike to physiology and psychology; and alike to physical dynamics and psychical dynamics. In obedience to this law, a soul of one kind, that is, of one kind of psychic constitution, specific experiences and aptitudes attracts, as its descendant, another (disembodied) soul (or astral body) of the same kind, that is, of the

*"Essays: Scientific, Political and Speculative," Vol. III, pp. 400-1.

same kind of psychic constitution, specific experiences and aptitudes as its own. The arrangement and organization of gross particles into the physical body depend partly upon the type of the astral body or psychic constitution of the attracted soul, and partly upon the operation of the Law of Reciproca-tion, in accordance with which the soul not only acts upon, but is itself acted upon by, the germ and the nutritious substance in the womb.

And by germ is to be understood not only the cell itself, but the whole organism of which the cell is part. Thus the mind of the mother and the forms generated or perceived by it in the Astral Essence re-act powerfully in the developing entity where the physical frame is concerned, and in a lesser degree on the now dormant soul, which is later to be gradually awakened as that frame progresses to maturity.

Hence the resemblances both in physical and moral traits between the progeny and its immediate or mediate progenitors.

98. It has been shewn above that man cannot inherit any qualities, physical or metaphysical, from his ancestors, but yet may be of the same physical and moral type as these, merely in virtue of the like nature of his pre-natal soul, and the operation on the mother nature of the influences, or so to say reflections, in the Ether or Astral Essence by which she is surrounded, and which will commonly be those of the male progenitor or her or his relations.

Further, it is an indisputable fact—and scientists themselves recognize it—that man has pre-natal experiences and knowledge in him. The legitimate inference from these premises is, that man, or, more correctly, his soul, must have lived pre-natal lives, and must have acquired those experiences during those lives. In other words, man must have had previous births. It is clear that the “ancestral ex-periences” of the Doctrine of Heredity cannot be anything but the “personal experiences” (of the soul in its previous births) of the Doctrine of Metempsy-chosis or Progression of Souls.

99. You will ask me why does not, then, man remember the incidents, &c., of his past birth? It is no more difficult to answer this question than to answer the query, why does not man remember when, where, how, and why his ancestral experiences were obtained, if it be true that, as the Doctrine of Heredity teaches, these experiences are registered in his nervous system, and if it be also true that he enjoys the benefits of those experiences. Will any evolutionist deny that a man has *inherited* pre-natal experiences, because he cannot remember the pre-natal incidents out of which those experiences arose? Certainly not; neither will the believer in the Doctrine of the repeated Re-incarnation of Souls admit the argument that a man had no previous births simply because he cannot remember the events of those births. Colonel Olcott, our respected President, remarks in his learned Madras lecture on the "Common Foundation of All Religions:" "We have forgotten nineteen-twentieths of the incidents of our present life. Memory plays us the most prankish tricks. Every one of us can recollect some one trifling incident out of a whole day's, month's, year's incidents of our earliest years, and one that was in no way important, nor apparently more calculated than the others to impress itself indelibly upon the memory. How is this? And if this utter forgetfulness of the majority of our life incidents is no proof that we did not exist consciously at those times, then our oblivion of the entire experiences in previous births is no argument against the fact of such previous births. The only question with us is whether in science and logic it is necessary for us to postulate for ourselves a series of births, somewhere, at various times. And this I think must be answered in the affirmative."

But this is perhaps a little beside the question, for the fact is that it is in this case not so much a matter of forgetfulness as of transmutation; it is no longer the blossom, but the fruit. When the old ego, the soul of the previous birth, is preparing for its new career, it is, as it were, remelted up along with all the

thoughts, words, deeds and experiences of that latest past life and recast a new ego (yet with unchanged individuality), compounded of all these antecedents. The old experiences are not then remembered or forgotten ; they have ceased to *be* remembrances, and have become part of the soul itself. The facts out of which they arose have dropped away, dead petals of a dead past, but the fruit remains.

100. The soul is not, however, I believe, always entirely oblivious of *all* the events, &c., &c., of its past existences. This fact is conceded even by some scientists, though, of course, under the guise of "ancestral experiences." Among others, one writer says: "Modern Science suggests another possible source of these distinct spectra of memory. May it not happen that, by the Law of Hereditary Transmission, which is now being applied to mental as well as bodily phenomena, ancestral experiences will now and then reflect themselves in our mental life, and so give rise to apparently personal recollection? No one can say that this is not so. At the age when new emotions rapidly develop themselves, when our hearts are full of wild romantic aspirations, do there not seem to blend with the eager passion of the time deep resonances of a vast and mysterious past, and may not this feeling be a sort of reminiscence of pre-natal, that is, ancestral experience? This idea is certainly a fascinating one, worthy to be a new scientific support for the beautiful thought of Plato and of Wordsworth. If, for example, it were found that a child that was descended from a line of sea-faring ancestors, and that had never itself seen or heard of the "dark-gleaming sea," manifested a feeling of recognition when first beholding it, we might be pretty sure that such a thing as recollection of pre-natal events does take place."*

101. There remains the question of the future of man, but this becomes a simpler matter now that

* "Illusions : A Psychological Study," pp. 280-1.

his previous existence has been demonstrated to be a natural necessity. Why has the man entered on this present life? Because this was the unavoidable outcome of the experiences, &c., &c., of his previous birth. He underwent certain influences, acquired certain experiences, and thought, spoke, and did certain things. Those influences, experiences, thoughts, words, and deeds were so many material causes; and out of the combined action of these causes (according to the Law of Compensation) there necessarily *had* to be, and *was* evolved an effect. And what was that effect? It was the present birth. Man does, in his present life, live under certain conditions of life; is affected and modified by those conditions; acquires in his struggle for life new experiences and knowledge; thinks, speaks and acts. All this engenders an entire series of material causes. Shall these causes disappear resultless? Can so many causes be, as it were, annihilated without developing the necessary correspondential effects? Never. They must have their effects. What must these effects be? Clearly such as can only be resumed in a future existence. Hence re-birth in the future is also a natural necessity.

It has, therefore, been scientifically demonstrated that the past, present, and future births of man are a natural necessity; being simply a breachless continuity of evolution, an unbroken chain of causes and effects.

102. This Doctrine of Palingenesis teaches us that man must continue to be born and re-born so long as his mind is devoted to worldly affairs, that is, as long as it is affected by desires, feelings, thoughts, &c., having for their object the things of this transitory life. In our Philosophy, these desires, feelings, &c., and the deeds to which they give rise, are summed up under the title of Karma, and the resultant re-births and the experiences (too full alas! of sorrows, disappointments, &c., &c.) attendant upon those re-births, are styled Karmanubhavam. Why must a man enter upon a future existence as a consequence

of his Karma? Why, because, Karma is the sum of a series of material causes, *i.e.*, the actions of an internal material entity, called the Soul. Is Soul, then, a material existence? Yes; for, it is a coalition or embodiment of the particles of Ether, which, I told you, are the units of Matter. The actions of a material entity can be, and are produced by the motions of a portion, or the whole, of the constituents of that entity. The motions of constituents presupposes the disturbance of the constitutional equilibrium; and this disturbance again presupposes a disturber. The disturber in this case is the Will or Desire for existence or attachment to the objects or pleasures of earthly life. Under the influences of the Will the psychic particles move; and as these move, they do, according to the Law of Psychic Dynamics, attract Cosmic Matter from the surrounding space. The Cosmic Matter thus attracted gets assimilated in the Psychic or Soul; and the Psychic becomes denser and heavier in constitution as that Matter accumulates in and around it. When it is disembodied, *i.e.*, when it is rid of the gross carnal body by the Force of the Psycho-Physical Repulsion, popularly called death, it does, except in rare cases, gravitate, though not until it has received the reward of all its good deeds in a subjective world towards the sympathetic Souls of some couple, whose offspring it becomes. Thus it enters upon another birth. If it again lives a worldly life in this birth, it will again be reborn for the same reasons.

103. Thus the Awful Wheel of Re-births and Re-deaths will revolve for it so long as its lives continue to be characterized by attachment to material and worldly objects, the good results of its karma, being experienced in that subjective world or state in which it exists between death and rebirth, and the evil in its rebirth and the conditions attaching to that new life. I need not tell you that all earthly lives are inevitably attended with much of care, sorrow, and suffering. "No scene of Human Life, but teems with Human Woe"! To escape all this, our

only resource is to put a stop to the recurrence of births. But re-births or re-incarnations are the unavoidable results of Psychic Attraction, and Psycho-Physical Evolution ; this Attraction and this Evolution are the unavoidable results of psycho-physical existence ; this existence is the unavoidable result of the attraction, accumulation, and assimilation of Cosmic Matter ; this attraction, &c., &c., are the unavoidable results of the dynamic energies of the soul ; and these dynamic energies are the unavoidable exercises or activities of The Will or Desire for Life. Thus we see that the Will of man is the cause of his re-births and re-deaths. Is not, then, the birth of man the product of mere circumstances ? Is it really his Will that determines his birth ? Insentient beings as well as sentient beings, from the lowest order up to man, are merely the creatures of circumstances ; but when they evolve into mature, rational, responsible men they need no longer remain simple toys or puppets of the surrounding influences and elements, for they become, to some extent, able to influence and modify circumstances and command and control the elements, by their intellectual powers, (which are other and more intensified forms of the Will), exercised and utilized in the occult or mechanical way. This truth is amply exemplified by the various arts and manners of life of the civilized man, and the occult phenomena displayed by adepts.

104. With the cessation of the Will, re-incarnation will also cease. But how to stop the Will ? Will is the concomitant of the Desire for Existence ; and this Desire is the concomitant of Ignorance or *Avidya* of the real origin, and nature and destiny of being. The following quotation may be read with interest : " What is evil that afflicts mankind ?... Ignorance. Its essential concomitants were the conditions of sentient existence. The essential concomitant of this is personal consciousness, the essential concomitants of this are a name and a form. The essential concomitant of the sense of contact is sensation, the essential concomitant of which is

desire, which invariably makes man cling to existence. The essential concomitant of existence is birth, the essential concomitants of which are old age, death, sorrow, lamentation, pain, melancholy, despair.”*

105. Though the world teems with evil and misery, though its weary ways, fanned only by sighs, watered only with tears, lead alike over the burning sands of suffering, and the fetid swamps of sin, yet by far the majority of humanity, so far from growing disgusted with mundane life, cling to it with an irrepressible desire to live on. They are wallowing in the mire of carnality, avarice, and what not ; are born again and again in consequence of their earth-tending Karmas ; and are fated to taste and retaste the bitter fruits of life. On the other hand there are also some few, who, regarding this world as a prison, and all worldly enjoyments, titles, honours and riches as mere vanities (tinsel-decked toys, seen against a mirage), hunger and thirst after spiritual emancipation and felicity. They are no longer deceived and satisfied by the shadow, but crave and seek for the substance. The sordid material life of the world does not suit or please them ; and they quit it sooner or later, when their duties in it have been rightly discharged, and betake themselves to solitary recesses in the bosom of nature, there to meditate, secure perfect control over their minds, spiritualize their natures, and attain Deliverance from Matter, *i.e.*, from the Relativity and Finitude of Existence. In these retreats, they see and hear nothing that can contribute to engender, strengthen or continue in them the desire for worldly existence, and here too it is possible for them, which it is *not* so long as they live in the ordinary life of the world, to pursue unmolested the great work (the *magnum opus* of the Alchemists) of spiritual sublimation.

106. These recluses have been often stigmatized

* Quoted from the “Vicissitudes of Aryan Civilization in India.”
By Professor M. M. Kunte, p. 430.

as lazy and selfish by unthinking, worldly-minded so-called utilitarians. Many of these self-complacent denouncers are those who talk so grandiosely about the "Struggle for Existence—" a struggle into which *they* doubtless throw themselves, heart and soul, careless who else is crushed in this fratricidal contest, and only anxious to secure for *themselves* the largest possible *share of everything*. Unlike these people, unlike indeed the mass of mankind, whose only care is to clutch the physical necessities and comforts, the luxuries and glories of this transitory life, the recluse strives only for deliverance from all the evil influences of this material Life. In a word, the *Struggle* of the worldly-minded is for *Physical Existence*; that of the hermit, for *Spiritual Existence*.

107. Hence the latter differs from the former in his modes of living, feeling, thinking, acting, and aspiring. Being thus differently conditioned and inclined, their respective developments also tend in different directions. There is a Universal Principle of Nature, well known even to the worldly, *viz.*, the Principle of Selection, which as it were watches all kinds of existences and organisms, and selects, develops, and improves such of them as come under the requisite and favourable conditions after the fashions or styles to which they incline. Therefore the development of the matter-bound man is Physical or Material; and that of the spiritual-minded, Spiritual. The divergence or differentiation of some selected constitutional type of man, such as that of the Psychist, and its evolution first into the type of Adept-like Man, then into that of Man-like Adept, and then into that of Adept, are purely and simply facts of Natural Selection and Evolution, just in the same manner that the differentiation of some favoured type of the Ape from that of the ordinary Ape-type, and its successive developments into those of Man-like Ape, Ape-like Man and Man, are facts of Natural Selection and Evolution. The Adept or Mahatma, who was once a man, now forms a *New Species* distinct from Man, just in the same

way that man, who was once an Ape, now forms a *New Species* distinct from the Ape.

108. It is an invariable law of Nature that a being progresses or retrogrades in its type according to its conditions of life, habits of thought, manners of action, &c. If men were to live with Apes, abandoning the company of man, they would have no occasion nor necessity for the exercise, preservation, or development of their moral, intellectual or spiritual capacities; and so these latter would, in the course of time, become, owing to disuse, more and more rudimentary, to be finally eliminated. And by their endeavours to live comfortably in the company of the Apes, new and different organs and capacities, such as would suit best the platform of Ape-life, would develop in them. With the retrogression and elimination of a few of the physical and most of the mental, moral, and spiritual faculties of man, and the evolution of a few of the physical capacities of the Ape, the man becomes the Ape. What is true of Man and Ape is likewise true of the Adept and Man: for, Ape, Man, and Adept (and all other natural objects) are, each of them, creatures of the laws and forces of Nature; and, accordingly, live under the stern impartial and eternal Reign of Law. We have read in Mr. Sinnet's "Occult World," page 136, that one of the Mahatmas themselves, Koot Humi Lal Singh, admits that this is the fact, namely that the Adepts or Mahatmas are not above Nature, are not preternatural beings but merely spiritually developed men.

109. Now, gentlemen, consider well these facts, and say, if it is laziness or selfishness on our parts, we who are the lineal descendants of Apes, that has induced us to forsake our ancient homes and families (of Apes) and cease to recognize their (Apes') kinship, to hold correspondence with them, or seek their friendship? Or, is it that we have developed into a new and distinct species; and that our modes of living, &c., &c., can no longer accord with theirs?

Can we again live with and move in the company of Apes, and yet help relapsing into Apes, after the expiration of sufficient time? No; never. How can then the Brothers or Mahatmas mingle closely for any lengthened period with the masses of mankind, and yet avoid retrograding into men like ourselves? Why, then, do some worldly-minded people so uncharitably shower upon their holy heads such unmerited epithets as lazy, selfish, and so forth, and dub them enemies rather than the friends (as they truly are) of mankind?

110. To return: The spiritually inclined fly this world of evil and sin, take refuge in solitude and practice *Yoga* or Psychism. Now, what is this? Psychism (*Yoga*) is the Science and the Art of the Evolution and Culture of the Soul and its Final Involution or Absorption into the Absolute Being. I will not now attempt a detailed account of this science and its technology but will simply present a general outline of it. It is divided into two *divisions* (but not two *kinds*):—(a) *Kriya or Hata Yoga*, the suppression of the Physical tendencies; and (b) *Jnana or Raja Yoga*, the development of the spiritual tendencies. The former is the Preliminary or *so-called* Psychism; and the latter the Real or Proper Psychism. The aim of the first is the development of the Powers of Abstraction (from the outside world) of Quietism, and of Introspection of the Mind—in short, of *Samadhi*. The neophyte in Occultism is required to train himself in dark and silent spots with his mind concentrated upon a single object. It is, indeed, a very difficult, nay, in some cases, utterly impracticable, task to make the roving and fickle mind steady and fixed or concentrated upon a thing. The possibility or otherwise of the concentration of the mind depends upon the inactivity or otherwise of the mind; and the inactivity or otherwise of the mind depends to a great extent much upon the inactivity or otherwise of the respiratory organs. If respiration is active, the mind as a rule is active too; and if respiration is inactive,

the mind is inactive also. Hence the Method of the Regulation and Suppression of Respiration forms the first chapter or section in the Science and the Art of the *Hata Yoga*. This method is called technically *Pranayama*. The successful practice of *Pranayama* develops in a man despotic control over his mind, and enables him to secure mental concentration at pleasure, but this may doubtless be also acquired in other and less physical methods. Darkness, silence, and the concentration of the mind, or contemplation, are the conditions required for the evolution of the powers of Abstraction and Introspection, and for the inducement of Tranquilization or Quietism of the Mind. When the mind or will is thus tamed down into concentration, abstraction, &c., &c., it does not disturb the relative equilibrium of the psychic constituents; and thereby ceases to attract gross matter from the surrounding space, and to hold in cohesion the gross particles already in contact with it in the shape of the molecules of the corporeal body. These latter molecules are consequently drawn or pulled away and dispersed by the attractive forces exercised by the molecules or atoms floating in space. So the whole corporeal body will become disintegrated or eliminated in the course of time. The soul will not now be psycho-physical entity, but a purely ethereal or psychic one. Constant meditation accelerates its evolution in occult powers; and on reaching a certain stage of development, it becomes strong and powerful enough to perform wonders. The period of the Gross Body marks the period of the Kriya Yoga; and the period of the comparatively Etherealized Body marks the period of the Jnana Yoga. The transition period between these two is one of sore trial to the Yogi, because he may now become dazed by his newly-acquired psychic powers or *Siddhis*, and not being yet an adept proof against the weakness of the mind he may be tempted into displaying his occult powers. Gradually egotism and desire for notoriety will steal and grow strong upon him; and—alas! he is ruined! As he performs occult pheno-

mena, his psychic energies are agitated, and, are, according to the Laws of the Correlation and Transformation of Forces, converted into useless kinetic energies, and are wasted and radiated away. This psychic agitation attracts gross matter, and his constitution becomes grosser and grosser, till at last all his occult powers are exhausted, and he becomes a mere common man. Many an Adept-like Man, and many a Man-like Adept have met this deplorable fate ! The Psychist (Yogi) must, therefore, step cautiously upon the slippery ground of this transition stage. Only some cool-headed, resolute and wary Yogis, *i.e.* Adept-like Men and Man-like Adepts, succeed in travelling safely through this precipitous and dangerous pass running between materiality and spirituality ; and in reaching the safe ground of Mahatmaship or Adeptship.

III. Not only does the adept escape many rebirths, but he has, to a great extent, secured his safety (while reducing its length) throughout the rest of that weary journey, which every man and every adept, yea even a Buddha, must travel after quitting this world before he is ultimately *resolved* into the Substance of the Eternal Spirit and Life : Then the Finite Existence is absorbed into the Infinite Existence ; the Personal Soul merges into the Universal Impersonal Soul, Relative Knowledge is sublimated into Absolute Knowledge ; the Relative Happiness into the Absolute Happiness, or *Brahmunandham*.

My dear Brothers, this is Beatitude—Final Eman-
cipation—*Nirvana*—*Moksha*.

112. The state of *Moksha* is thus described by a great Rishi of Ancient Aryavarta : " Here lust and anger, arising from delusion, and infesting the world, are utterly destroyed. Here that ignorance and worldly lust, which are ever productive of mischief, are burnt up from their corrupt roots by the great fire of knowledge. Here the intractable cords of time, with lands and houses, as

hard knots, and consisting of the selfish discriminations, *myself and mine*, are cut down by the weapons of true knowledge. Here is dried up, by the sun of true knowledge, the violent stream of desire, which takes its rise in evil, and is fed with the waters of sight, together with avidity and all evil thoughts. The forest of troubles, slander and detraction, together with delusion, jealousy and envy, is here burnt up by the fire of moderation. The three-fold bonds of the world are all loosened on attaining emancipation by the weapon of Knowledge. Here I have by the boat of resolution (*Uirya*), passed over the *Sansara* (the world), infested with the aquatic monster of lust, and agitated by the waves of the waters of desire, excited by an evil eye. Here I have an experience of immortalitywhere-in is cessation of old age, death, sorrow, and trouble.”*

113. Gentlemen, before concluding this address let me answer these several questions that may naturally be proposed :—

(1.) Why is it necessary that Man *should strive* to attain *Mukti*, if it be true that the whole Material Universe, and all the things (including Man of course) therein shall be resolved and absorbed into the Eternal Principle or Parabrahmam on the day of Kalpa ? (2). “You say,” one might ask me, “that the Soul and the Body are material in constitution ; and that the Soul loses its personality and individuality into the Impersonal Parabrahmam at the time of its Final Emancipation : Is Soul, then, material and mortal ? If so, what is the difference between the psychological doctrines of Theosophy and Materialism† ?” And (3). What is Maya ? Is it eternal ?

114. Answer to question No. 1. Man should *strive* to attain *Mukti*. If he does not do so, he will, before the time of the Kalpa, be born and re-born

* The Hindu Philosophy, by K. M. Banerjea, p. 198.

† There appears to exist some little confusion in certain passages of this essay, between soul and spirit or *Atma*.—S.R.

again and again innumerable times, in inevitable consequence of his Karmas ; and ceaselessly continue to experience all the miseries, which are the indissoluble concomitants of finite sentient existence, during those births. It is simply to escape, as soon as possible, the unremitting rotations of the crushing wheel of births and deaths that Man should, and if wise does, endeavour heart and soul to obtain exemption from reincarnation, and attain Moksha, *before the Kalpa arrives and relieves him.*

115. Answer to question No. 2. It is true that according both to Theosophy and Materialism the individual soul is subject to exhaustion. But there is this most significant difference between their respective teachings : Materialism says that the Body and the Soul are not separate entities, but are one and the same entity ; and that with the extinction of the Body, the Soul is immediately extinguished also. And so there is an end of Man when he dies. But, on the contrary, Theosophy says that the Soul is a distinct entity from the Body, and survives the death and decomposition of the latter, on account of its constituents being still held strongly together by the Cohesive Force of its Deserts (*Karma.*) The Soul puts on body after body, and continues to live as a separate individuality after their removals by death as long as its Deserts (*Karma*) so require. But it ceases to be reincarnated, and it becomes absorbed into the Eternal Force, when its Deserts (*Karmas*) no longer constrain it to labour and suffer. Unquestionably the isolated Individual Soul is, not according to our doctrine, everlasting *per se*, yet it *no more perishes* ; it is *no more annihilated*, (as Materialism would have it) than the Ganges perishes or is annihilated when it falls into the ocean ; it is *merely resolved* into, or comingled with, the Infinite Spirit, and lives, while retaining the sum of its individual experiences, (the remembrance of all of which it recovers) as an integral part of the Immortal Impersonal Unindividual Soul, of the Whole Universe, for ever and ever.

116. Answer to question No. 3. *Maya* is the Relativity of Knowledge: the Relativity of Knowledge is occasioned by the Duality of Existence, namely, the Infinite Existence and the Finite Existence. The Infinite is an Existence of Eternity; and the Finite is an Existence of Time. Therefore, the Finite Existence is derived from, and is conditioned by, (*i.e.*, is an Emanation, or Aggregate of the Emanations of) the Infinite Existence. So, *Maya*, or the Relativity of Knowledge, will continue to be as long as there is a Conditioned or Finite Existence. And when this conditioned or Finite Existence is absorbed into the Unconditioned or Infinite Existence, the Duality of Existence will cease to be; and with it *Maya* will also cease to be. Therefore, *Maya* is not eternal.

117. This, then, my dear Brothers, is a feeble and imperfect outline of some of the more salient features of the Metaphysics of Theosophy as I understand them. Now this Theosophy, towards which all Science and Philosophy are in this 19th century after Christ slowly but surely drifting, was known, taught and utilized in long past ages in this our Venerable and beloved Aryavarta. The Great Rishis of antiquity Sri Veda Vyasa, Jaiminy, Patangali, Narada, Sankaracharya, Gautama and many others, the eternal monuments of whose marvellous genius and wisdom are preserved in the pages of our sacred Vedas and Shastras, preached this same philosophy, these same doctrines. Our forefathers did, thousands of years before the Christian Era, construct systems of Philosophy, Science, Religion, Ethics and Law which are admitted to-day, in this last quarter of the nineteenth century, by some most competent European authorities to be equal, if not superior, to those of any other nation, ancient or modern.

118. No man possessing even an average acquaintance with the Comparative History, Comparative Philology, and Comparative Philosophy of Nations, will question the fact that Chaldea, Persia,

Egypt, Greece, Rome, and (through this last) the rest of Europe drew, in old days, their inspiration from our once glorious country. In those golden days of yore (soon, ah surely soon, to return once more), it was here that first welled the divine fountains of philosophy, science, poetry and art; here that the other nations of the world first quaffed the true elixir of life; here where the wisest of every clime flocked to do homage to our beloved mother country—learnt at her holy feet, and loved and revered her. Even to this day after thousands on thousands of years her voluminous and comprehensive literature is simply inexhaustible, and did, and still does, command the admiration and astonishment of the world alike by its magnitude and its magnificence.

119. Even the Western world itself admits something of India's old supremacy. What does Jacoliat say: "India is the world's cradle; thence it is that the common mother in sending forth her children even to the utmost West, has in unfading testimony of our origin bequeathed us the legacy of her language, her laws, her ethics, her literature and her religion."*

Again: "And then did India appear to me in all the living power of her originality. I traced her progress in the expansion of her enlightenment over the world. I saw her giving her laws, her customs, her ethics, and her religion to Egypt, to Persia, to Greece, and to Rome. I saw Djeminy and Veda Vyasa precede Socrates and Plato—and Christna, the son of the Virgin Devanagny, precede the son of the Virgin of Bethlehem."†

Again: "The life of several generations would scarce suffice merely to read (not to say to understand and appreciate) the works (in Sanscrit) that Ancient India has left us on history, ethics, poetry, philosophy, religion, different sciences and medicine."‡

* "The Bible in India," p. 11.

† *Ibid*, p. 18.

‡ *Ibid*, p. 21-2.

And : " Those Brahmins, who spoke a language the most beautiful and the most perfect,—who so penetrated, analyzed, investigated in every form the problem of life as to leave nothing for innovation, either to antiquity or modern times in the domain of literary, moral and philosophic sciences.....these men who, after having studied all, obscured all, reversed all, and reconstructed all, had come in final solution of the problem, to refer all to God, with a faith the most vital, and thereon to build up a theocratic society, which has had no equal, and which after more than five thousand years, still resists all innovation,—all progress—proud of its institutions of its beliefs, and of its mobility....."*

Respecting the Philosophy, Science and Religion of the Vedas, this same Orientalist says : " I do not think that the lapse of ages, and what we conventionally call the development of the human mind, has added anything to these definitions.....For me, I feel myself penetrated with an admiration beyond comparison, for those sacred books (Vedas) which give me an idea of God so *grandiose*, and so free from all those imperfections, which certain men have surcharged it with in other climes (than India). Astonishing fact ! The Hindu revelation which proclaims the slow and gradual formation of worlds is of all revelations the only one whose ideas are in complete harmony with modern science."†

120. It is useless to pile up quotations, or I might cite authority after authority in proof of the ancient grandeur of India, but the facts are now too well known, and ignorance alone can dispute her proud position, as Mother not only of nations, but of all those Truths, all those Sciences and Arts that embellish life, alleviate its sufferings, and guide the Soul to " where beyond these voices there is Peace ! "

The Ancient Aryavarta is now unveiled : Come ! dear Brothers, and gaze upon the dazzling splendour of our beloved Mother ! Which Aryan of India

* " The Bible in India," p. 63.

† *Ibid*, pp 184-6.

can contemplate her ancient glory and renown without feeling proud of his ancestry ; reverencing the memory of his forefathers ; and striving, thenceforth, to prove, in thought, word, and deed, true and loyal to the country, the religion, the philosophy, and the morality of his great ancestors ?

121. Alas ! there are things that may still lacerate our hearts brimming over, though these now be with joy, patriotism, filial love and gratitude, at the sight of our beloved native land, in all her unveiled glories.

How, ah ! how can we avoid feeling keenly and bitterly, the denationalization, demoralization, and growing contempt for all things spiritual of our Modern Youth ? With but a smattering of English, with a keen scent and fancy for everything foreign, and with no more or better knowledge of the Spencers, Tyndalls, Bains, Häckels, and the like whose disciples they profess to be than their mere names ; or, with at most a parrot-like acquisition of a few phrases and definitions culled from their works, imperfectly understood, and as imperfectly remembered, the young Aryan of to-day exults in adopting foreign costume, manners, vices, &c., and seems proud of proving himself a renegade, and of professing himself a skeptic or an atheist ! Alas ! English Education in India has now degenerated into a synonym for boots, hats, trowsers, beefsteaks and brandy-bottles, agnosticism and vice, atheism and intolerance ! And these miserable creatures are its truly characteristic fruits !

122. Is this to continue ? Let us hope for better things. Let us league together and devote ourselves to a life-long crusade against the growing demoralization and materialism of the age.

If you ask what we, a mere handful, a single drop in the human ocean of this vast realm, we unknown and feeble, can possibly achieve, I reply that no man is so weak or so humble as to be unable to aid both directly and indirectly the cause of truth and progress, and that even if I stood alone—I, a nothing, and a no one—I should yet by no means despair of

accomplishing *some* good. But I do *not* stand alone,—nay I am surrounded by a crowd of you, my Brothers bound by the sacred obligations of our brotherhood to battle side by side, for the right, and further *we* (handful as you phrase it) we even do not stand alone, but supported by, and linked together with the great and growing power of the Theosophical Society, the latest and best gift to mankind of that illustrious brotherhood of Adepts already so often referred to. For great as is the debt that we owe to our dear friends Madame Blavatsky and Colonel Olcott, the self-denying and devoted Apostles of this holy cause, we must never forget that it is our own illustrious countrymen, the Mahatmas, mostly sprung from this sacred Mother-land, who are the real originators of Theosophy, which designed and guided by them, must, year by year, develop till not only all India but all mankind have been made participators in the Truth.

Truth! ah brothers how purely bright amidst the gloom of doubt and superstition which hangs like a pall over the hearts of men, shines out this divine message! *Magna est veritas, et prevalebit* is no idle dream. Men may come and men may go, but TRUTH lives on for ever. This day have I set before you good and evil—truth and falsehood—and now it is for you to settle with your own souls. Will you battle nobly for the truth, and if needs be, foremost fighting fall, or meanly, fearful of the world's sneers, and scorn, skulk still in the shadow of falsehood; will you lower and degrade yourselves by clinging to evil, wallowing like unclean animals in the mire of earthly lusts and desires; or, will you not, rather purifying yourselves from these and all the sordid cares of fleshly life, struggle up manfully towards the ever brighter growing light, never looking back, and never wearying until the good fight fought out, you pass at length pure and perfect, into the ÉTERNAL REST—NIRVANA, MOKSHA?

AMEN ! ,
NAMESTA.

UNIVERSITY OF MICHIGAN



3 9015 02887 3878



